



UNITED  
2D  
2D FORCE  
FLEE  
CAMP LEJE

Misc.  
CORRESPONDENCE  
DEALING  
WITH EQUIPMENT

REPLY REFER TO:

11013  
4L/N/S  
0443

22 APR 1986

MEMORANDUM

From: Logistics Officer,  
To: Section Head, Planning  
Corps Base

e, Marine

Subj: COLLATERAL EQUIPMENT FOR P-257

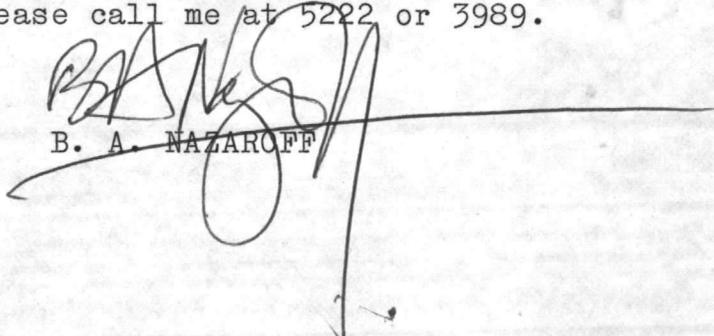
Ref: (a) Yr Memo of 9 Apr 86

- Encl: (1) List of Industrial Equipment  
(2) List of Base Property Equipment  
(3) Wide Span Rack LEMCO Enterprises, Inc Diagram  
(4) Storage Assemblies LEMCO Diagram  
(5) Straight Stack Captive Pallet Storage System Assembly  
LEMCO Diagram  
(6) 48" X 48" Steel Pallet LEMCO Diagram

1. Per your request, enclosures (1) through (6) are provided. Equipment to be provided must be equivalent in size and functions to items proposed. The asterisk (\*) denotes equipment not presently held by the Battalion.

2. We have catalogs for Bacharach's only. The DETREX degreaser will not be transferred to the new facility.

3. If you have any questions, please call me at 5222 or 3989.

  
B. A. NAZAROFF

Copy to:  
C.O. GSMCo  
OIC MMU  
FSSG Fac0

1917

APR 22

22 APR 1917

TO THE DIRECTOR, BUREAU OF INVESTIGATION, U.S. DEPARTMENT OF JUSTICE, WASHINGTON, D.C.

FROM: [Illegible]

[Illegible body text]



UNITED STATES MARINE CORPS  
2D MAINTENANCE BATTALION  
2D FORCE SERVICE SUPPORT GROUP (REIN)  
FLEET MARINE FORCE, ATLANTIC  
CAMP LEJEUNE, NORTH CAROLINA 28542-5704

IN REPLY REFER TO:

11013  
4L/N/S  
0443  
**22 APR 1986**

MEMORANDUM

From: Logistics Officer, 2d Maintenance Battalion  
To: Section Head, Planning Branch, Public Works Office, Marine Corps Base

Subj: COLLATERAL EQUIPMENT FOR P-257

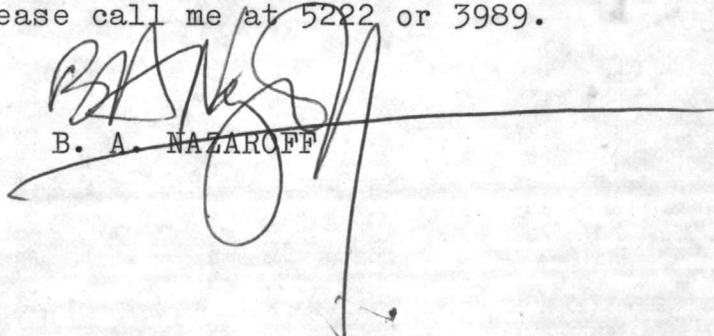
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B. A. NAZAROFF

Copy to:  
C.O. GSMCo  
OIC MMU  
FSSG Fac0

1911  
23 APR



1911

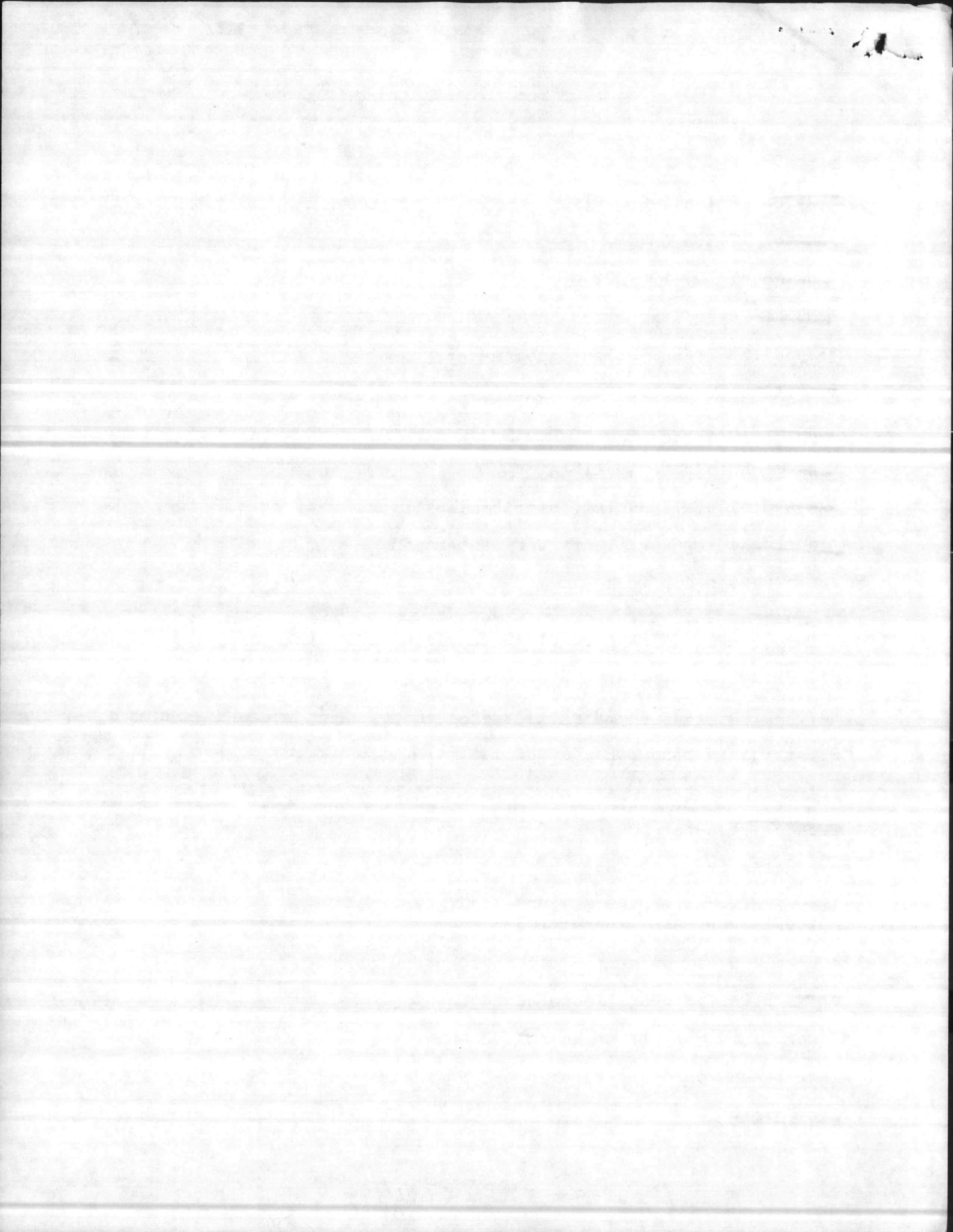
1911  
23 APR

\* Equip not presently held by Bn.

Bn now has  
need items

LIST OF INDUSTRIAL EQUIPMENT

<u>Title</u>	<u>Quantity</u>
Clayton, Delta 0-800 HP	1
Clayton 17-500 CM	3
Kahn Model 301-190-001	1
2000 HP Power Test	1
*Transadyne Transmission dynamometer	1
Hartridge fuel pump test stand	2
Nozzle tip reconditioner	1
Bacharach injector calibrator	2
Sun 690 altern, generat, starter test stand	1
Electrocheck generat, starter test stand	2
*Power master dip tank	1
✓ *Heavy duty power spray Washer Typhoon HD-60-72-5-5000-CO-2-RD, INTEX Products Greenville, SC. 29606	1
✓ *Work bench, stationary 28"Dx34"x108	35
*Parts bins w/adj shelving 14"x24"	278.5 ft
✓ *Rotary parts pins bins 36" diameter, multip	4
✓ *12' wide shelving w/adj shelving	49 ft
Grinder pedestal 10"	3
✓ *Hydraulic press 10 ton	1
✓ *Cleaning tank (parts) 38"x22"x34" (portable) #3139K11, pg. 946 (McMasterCarr)	1
✓ *300 gallon test tank for outboard motors portable	1
Drill press, pedestal mounted 24" S W	3
✓ *Power train rebuild stand 48"x72"	10
✓ *Work bench component rebuild 48"x96"x24"H	30
Axel stand	8

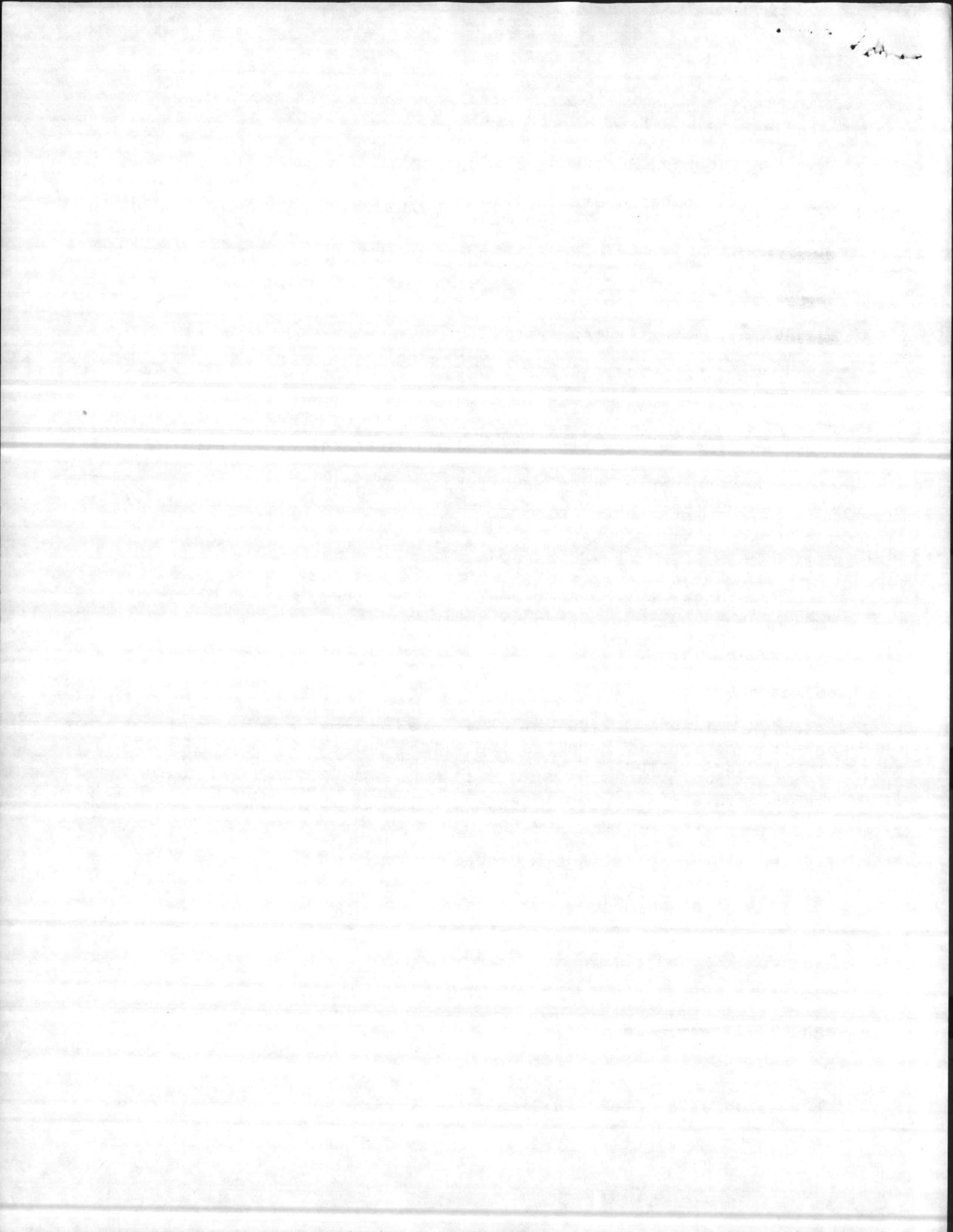


Done for  
v. Catalog

New  
items  
needed

<u>Title</u>	<u>Quantity</u>
*Mechanical Degreaser (see pg 945 of McMaster Carr catalog)	2
*Large engine rebuild stand 38"x90'	9
*Small engine rebuild stand 34"x48" (36671A16 pg. 1778)(McMaster Carr) o/c	8
Test stand (C&I)	2
Diagnostic tester (C&I)	1
Test stand, model Agarts Type II	1
*24" W shelving (see pg 126 McC)	78.5 ft
*Parts holding storage bins 2'x2'x2' 4 tiers high	2
*Parts holding storage bins 2'x2'x4'D 4 tiers high	2
*Benches, work portable 48"x28"x34"H heavy duty loading shelves. 7195-00-926-1938 o/c 285 1932	4
*Heavy duty loading shelves EM 100-3636 HD723 (LEMCO Manufacturing Inc) o/c	42
*Wire Span Racks (171 step beams/171 wire decks) o/c (LEMCO manufacturing Inc). See enclosure (3) 12069 E Main Rd. POB 72 North East, PA 16428	43
*Storage Assemblies Depth 48"/24" clearance between shelves/4 shelves/width 76"/height 96". See enclosure (4) Lemco	43
*"Straight Stack" captive pallet storage system assembly sections. Each section with 4 pallets (total 228 pallets). See enclosure (5) Lemco	76
*48" X 48" steel pallet for box of pallet storage system assembly above. See enclosure (6) Lemco o/c	76
*Modular storage cabs (Nuera Drawer System)	64
*Medium storage shelving EM 100-3636 72 2 Lemco	12
*Medium storage shelving EM 100-3636 72 4 "	10
*Medium storage shelving EM 100-3636 72 5 "	38
Manual Pallet Jacks	2
*Flat Bed Carts	2
*Motorized Pallet Jack (in lieu of a forklift)	1
*Intercom Communication System (3X7 station) Bji	3

185-67  
185-90



P-257  
PWO  
3 Jun 86

MEMORANDUM

From: Ms. M. Thompson, Planning Section, PWO, MCB, CLNC  
To: LT Nazaroff, Logistics Officer, 2d Maint Bn., 2d FSSG

Subj: COLLATERAL EQUIPMENT FOR NEW FACILITY (P-257)

Encl: (1) list of Industrial Equipment (pgs 1 & 2)

LT Nazaroff, I worked on this list today, there are quite a few items I cannot find, I have underlined them in red. I am having difficulty finding a work bench size 48 x 96 x 24H, they are usually 34" or at least 32" high. On the rotary bins I would like you or someone who knows exactly what you want to look over the McMaster Carr catalog and pick out what you would like, or suggest another source. The modular storage cabs (Nuera Drawer system) do you have anything on that?

I called the Frick Galliger Company in Columbus, Ohio today, and requested they send a catalog. They deal in storage bins, and storage equipment. I also called the Stanley Vidmar Company in Richmond, VA., but the man I wanted to speak to was out, so I left word for him to call. Hopefully, I will get it all together, and try to get some decent equipment for you all to work with.

MARY THOMPSON

9-287  
p. 2  
1 Jan 56

MEMORANDUM

From: Mr. M. Thompson, Planning Section, PWD, MCB, Okla.  
To: LT HAZARD, Logistics Officer, 2d Marine Bn., 2d LAR

Subject: COLLECTOR EQUIPMENT FOR NEW FACILITY (P-287)

(1) List of equipment...  
LT Hazard: I worked on the list today. There are four items I cannot find. I have underlined them in red. I am having difficulty finding a work bench six ft x 24 x 24. They are usually 34" or at least 32" high. On the necessary list I would like you or someone who knows exactly what you want to look over the Member Card catalog and pick out what you would like, or suggest another source. The model storage cans (10 x 12) are suggested. Do you have anything on that?

I called the Erie Gallier Company in Oklahoma, Chickasha, and they said they had a catalog. They deal in storage bins, and storage equipment. I also called the Sealey-Vincent Company in Richmond, VA, but the man I wanted to speak to was out. I left word for him to call. Hopefully, I will get it all together, and try to get some decent equipment for you all to look with.

MARY THOMPSON

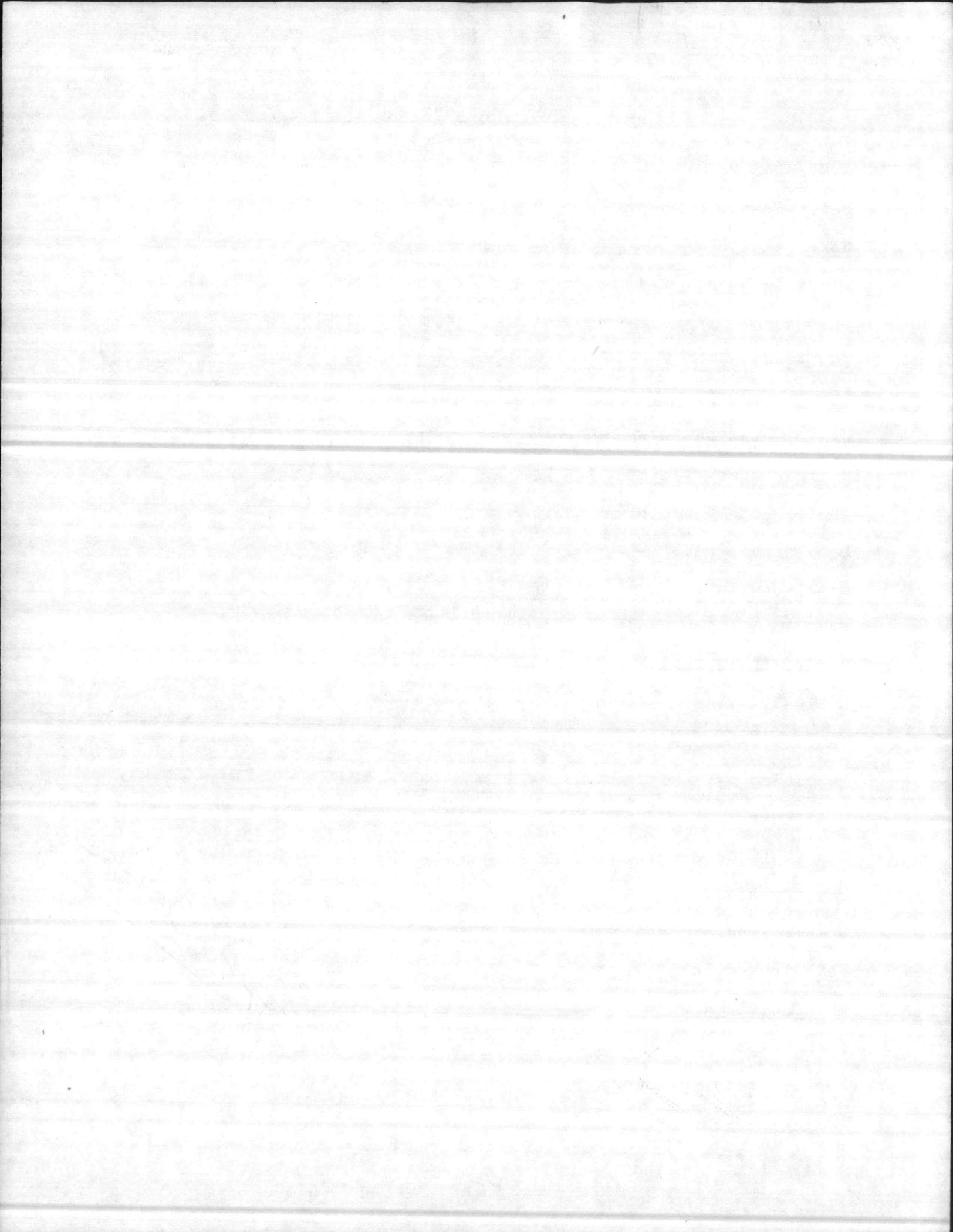
f-257

BASE PROPERTY EQUIPMENT

<u>NOMENCLATURE</u>	<u>QTY</u>
Hoist Frame (2 Ton) <i>Bi</i>	1
Refrigerator	5
Electric hoist <i>Bi</i>	1
Lamp desk	1
Table, GP	14
Chair, straight w/o arms	20
Chair, straight w/arms	20
Chair, rotary w/arms	23
Chair, rotary w/o arms	30
Desk single ped	30
Desk, double ped	23
Bar stool (high chair for bench work)	3
Chair, table, arm	4
Cabinet, file (4 Drawer)	7
Cabinet, storage D61	4
Partition	2
Dispenser, water w/o bottle	5
Stand office machine	2
Fan pedastal	30
Chest, ward, insert 3 drw	4
Wall locker, dbl tier	8
Bookcase, 3 drw	15
Locker, st	17
Table, occasional/end	2
Adding machine	2
Polisher floor electric	1

*Eggs out hand*

*ok*



7-23-86

P-257 Field Maintenance Complex

There was representation from the Field Maint Complex

Capt Tidwell who replaced Lt. Haron, he is the Maint. Material Unit officer

Captain Nelson is the General Support Maintenance Co Officer

Msgt Hollis, from GSM who is leaving on Friday 7/25/86, and will be replaced by MSgt Fultz, who was also present

Msgt Hollis is going to give me a list of what is needed. He said the list I gave to Lt. Nazaroff was for the three Increments..

Increment 1 is for MMU and GSM

Increment 2 is for GSMR

Increment 3 is for the welding shop and Machine Shop

Most of the admin <sup>will be on the 2nd floor</sup> unit will be in increment 3, There is no second floor in increments 1 and 2.

They need the power master dip tank which is a cleaning machine, and ~~it~~ can be purchased thru Intex Company /or/ Intex Products, Greenville, SC 29606 They donot want a Detrex; and said something about checking on a source of supply and coming up with Intex.

We will have to fabricate the 300 gallon test tank for outboard (testing) motors (portable), but Olsen is the A/E. Purchasing or Base Maintenance should be able to help to fabricate or know of a source of supply.

I gave MSGT Fultz a McMaster Carr catalog to check the model #'s and prices.

The modular storage cabs (Neura Drawer System) is supposed to be a system of bins that rotate. Push a button and the whole bin rotates and you can select the part needed. Its /?/ computerized. The BN S-4 has a phamplet on this system. SGT Hollis said reference a letter of Mr. Paul Minish

The Lemco shelving I have the brochures from Lt. N. on this.

3341  
# 1322  
3528  
on B.



OLSEN ASSOCIATES, INC.  
ENGINEERS • ARCHITECTS • SURVEYORS

WM. H. SIGMON, A.I.A.  
L. C. CHEEK, JR., P.E.  
J. C. BROWN, P.E.



ASSOCIATES:

J. H. MAYNARD, JR., P.E.  
K. L. HARROD  
R. E. HILDEBRAN, P.E.  
D. N. LEE, P.E.  
W. M. PEERY, A.I.A.  
J. W. JOHNSON, P.E.  
J. S. PORTER, P.E.  
T. B. DAMERON, P.E.

P. O. BOX 10666  
TELEPHONE 919/834-0781  
1330 ST. MARY'S STREET  
RALEIGH, N. C. 27605

February 11, 1987

Mr. W. L. Brant  
Planning Branch  
Public Works Department  
Building 1005  
Marine Corps Base  
Camp Lejeune, N.C. 28542

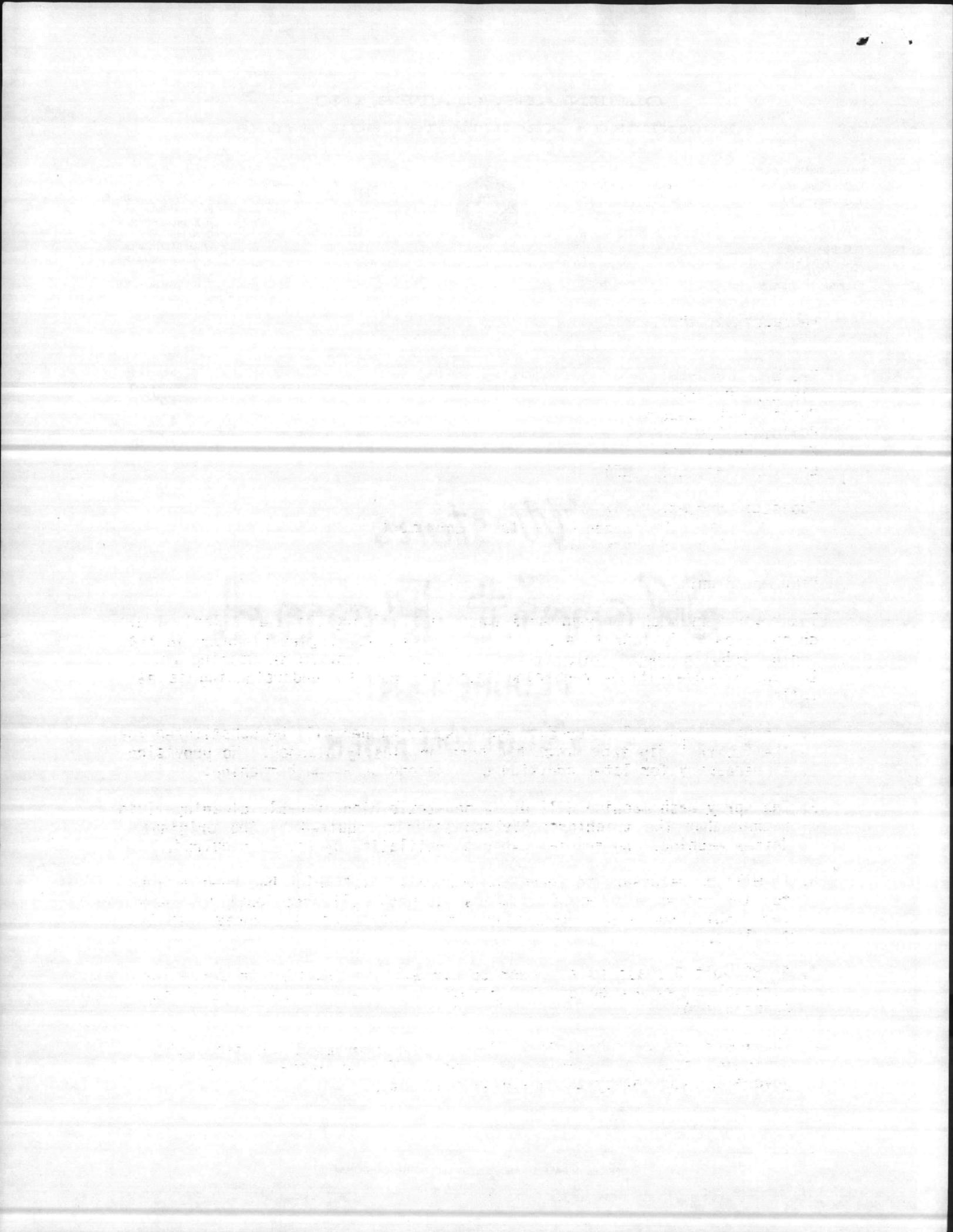
*Fred K*  
*Larry*  
*Karen KMB*

Subject: Project P-257  
Field Maintenance Complex - Increment I  
Olsen Project 8516

Dear Mr. Brant:

Thank you very much for your assistance in resolving the user's last minute change from a dip tank to a power spray washer for engine cleaning in the engine rebuild shop. This letter is meant to confirm in writing our telephone conversations regarding this matter. Our understanding is as follows:

1. A single "typhoon" heavy-duty power spray washer will be substituted for the "detrex" dip tank which had been originally planned. No provision is necessary for later addition of a second spray wash machine.
2. The spray wash machine will use a non-toxic biodegradable cleaning fluid rather than the trichloroethylene solvent required by the original detrex machine. No special exhaust ventilation system is required.
3. It will be necessary to leave the monorail hoist which had been designed for the detrex machine since the spray wash will occasionally be used for washing equipment which cannot be mounted onto the spray wash by forklift.
4. A 480 volt 3-phase 60 hz power supply will be provided to serve the optional 60 kw heater and 30 hp pump as recommended by the equipment manufacturer.
5. The power spray washer, as well as other government furnished shop equipment such as dynamometers, etc., will be installed by the government and not by the building contractor.



Mr. W.L. Brant  
February 11, 1987  
Page Two

Thanks again for your help in resolving this matter. Please call if you have further comments or instructions.

Yours very truly,

OLSEN ASSOCIATES, INC.



Dale N. Lee, P.E.

DNL:sw

cc: Ms. S.M. Gale, P.E.

OPAQUE  
DIAMOND WHITE  
BOND

MADE IN  
USA  
DEPT. OF COMMERCE

25% COTTON FIBRE

DEPARTMENT OF THE NAVY SELF-DUPLICATING NOTE

Use only for an informal, preferably hand-written note. Make duplicate only when required for follow-up or working file. See correspondence manual for formal, official memoranda.

TO: Mr. Dale Lee, Olsen Associates, Inc.  
Box 10666, Raleigh, NC 27605

<input type="checkbox"/> ACTION	<input type="checkbox"/> COORDINATE	<input type="checkbox"/> PREPARE FOR SIGNATURE
<input checked="" type="checkbox"/> AS DISCUSSED	<input type="checkbox"/> CORRECTION	<input type="checkbox"/> REPORT BACK
<input type="checkbox"/> CALL/SEE ME	<input type="checkbox"/> INFORMATION	<input type="checkbox"/> RETURN
<input type="checkbox"/> COMMENT/CLEAR	<input type="checkbox"/> PREPARE DRAFT	<input type="checkbox"/>

Subj: P-257 FIELD MAINTENANCE COMPLEX (Inc. I)

1. Attached is the technical information for the "Power Spray Washer", which is to be provided in lieu of the large dip tank.

2. If you need further assistance, please call

CAPT. ALSTON & CAPT. NELSON INDICATED THAT ONLY ONE "POWER" WASHER WAS BEING PURCHASED. THE CLEANING SOLVENT WAS ~~PROBLEMATIC~~. THE 10 MIN MEMORANDUM WOULD STILL BE USEFUL. (THIS INFO GIVEN TO DALE LEE.)

L. Brant.

FROM: Mr. W. L. Brant, Planning Br.  
Public Works, MCB, Camp Lejeune, NC  
28542

DATE: 4 Feb 87  
EXT.: 1833

Mr. Dale Lee, Glass Associates, Inc.  
Box 10555, Raleigh, N.C. 27605

Subject: 9457 FIELD MAINTENANCE COMPLEX (Line 1)

- 1. Attached is the technical information for the "Power Spray Washer", which is to be provided in lieu of the large dip tank.
- 2. If you need further assistance, please call.

*(Handwritten note, upside down)*  
 The 10000 manual would still be  
 the cheap set but not a professional  
 only as there is no spray gun  
 Capt. Robert J. Capt. Nelson, number 1000

*(Handwritten signature)*  
 L. Bryant  
 (This was away to Dale Lee)

# Memorandum

DATE: 4 Feb 1987

FROM: 2d Maint-Bn. 5-40 (Capt Alston)

TO: Facilities Planning (Larry Brant)

SUBJ: Degreasing / Cleaning Power Spray Washers

1. Info provided as requested

ADG

SECRET

4 Feb 1975  
26 West Bn. 2-40 (Capt. Carter)  
7 Section Planning (Army Board)

Department of Army  
Plan: Army  
Wash DC

Left forward in 1975

120

# TYPHOON<sup>®</sup>-HD

NO: 01  
MARCH 1986

## HEAVY DUTY POWER SPRAY WASHER

SPECIFICATIONS & DIMENSIONS

FOR

TYPHOON HD

DOUBLE RECIRCULATING STAGE

MANUFACTURING  
PLANTS:

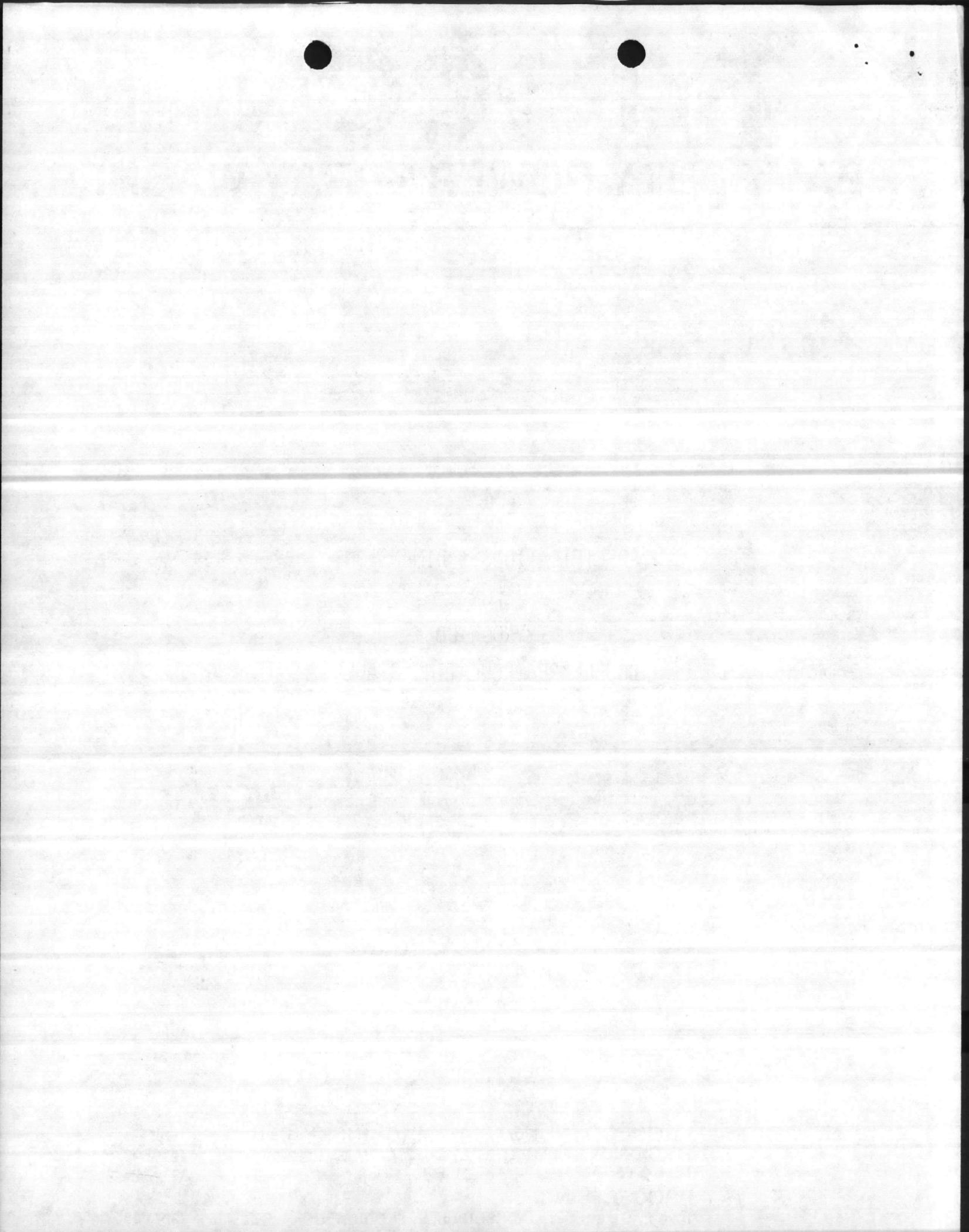
PROCECO INDUSTRIAL MACHINERY LTD.  
1243 DORION ST., MONTRÉAL, QUE., CANADA H2K 4A2 -  
TELEX: 055-62262

(514) 527-1335  
(514) 527-8741

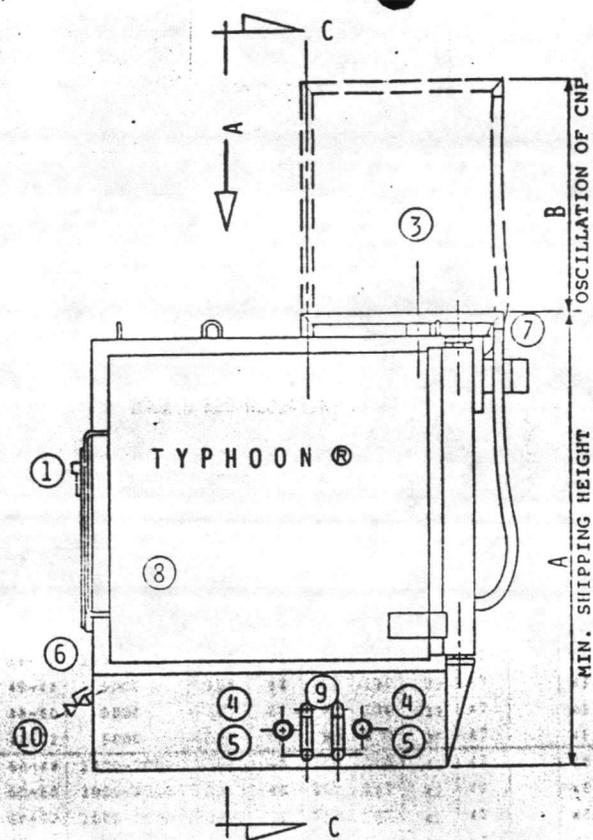
PROCECO INC.

1020 EAST 8th ST., JACKSONVILLE, FLORIDA, USA 32206 -

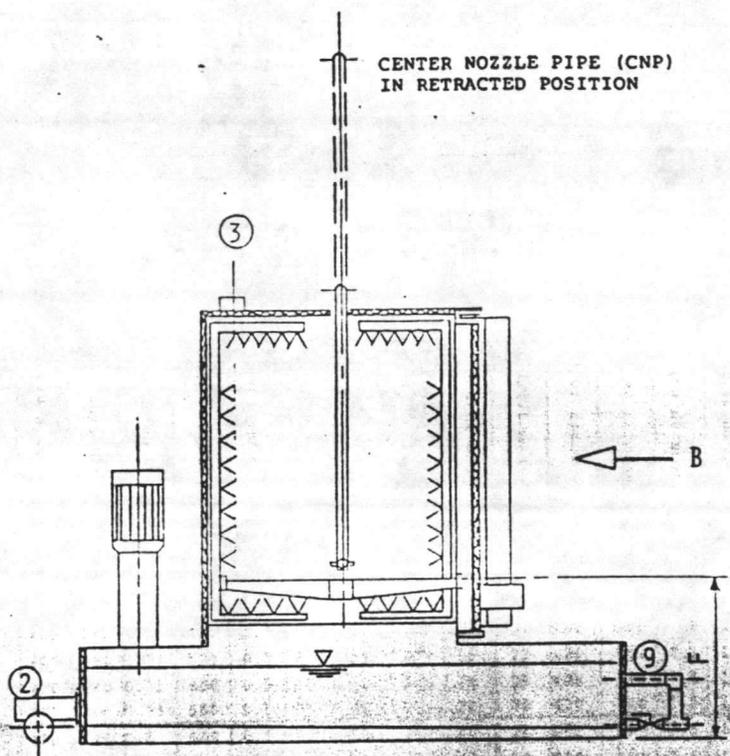
(904) 355-2888



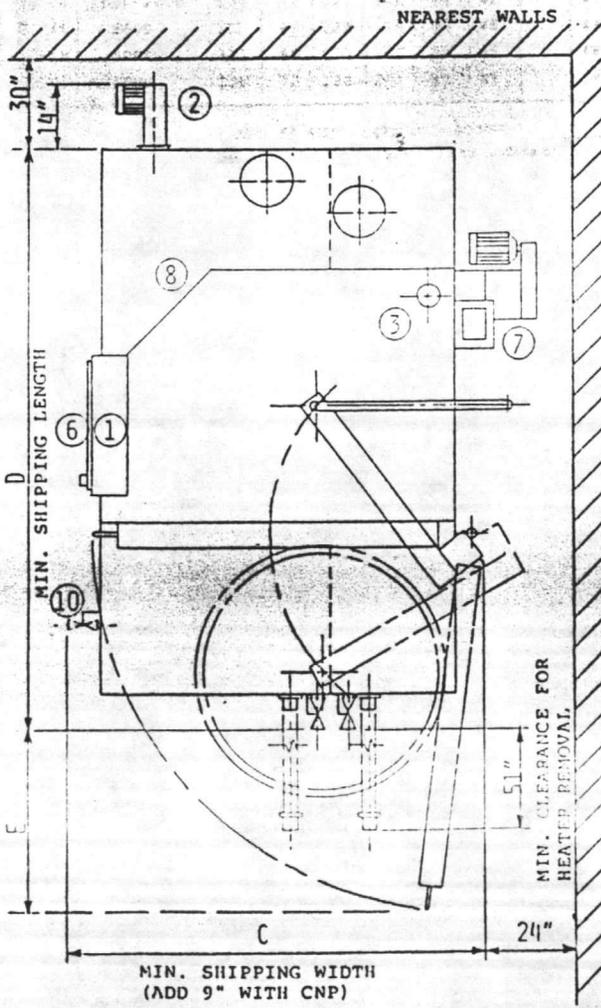
VIEW B



SECTION C-C



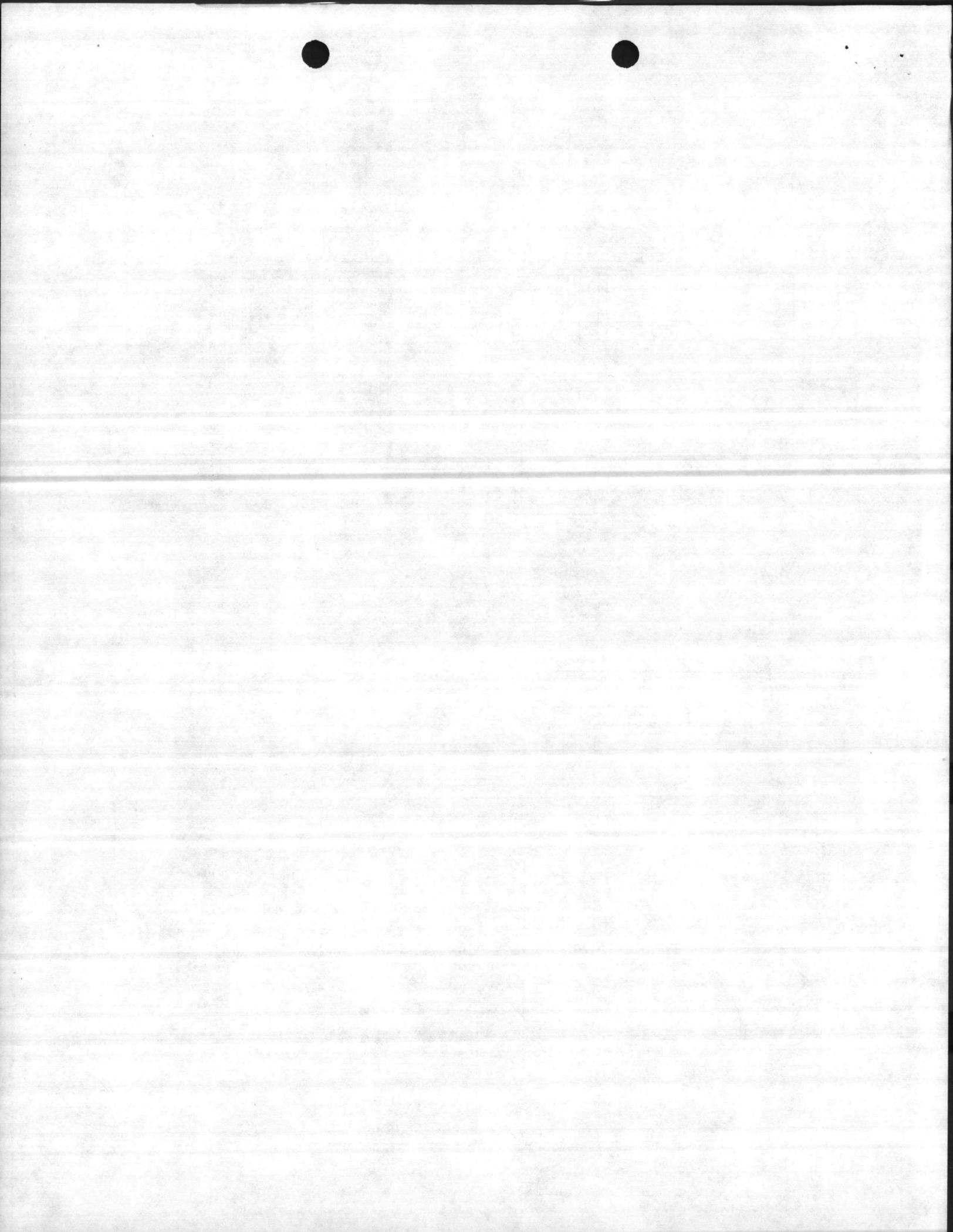
VIEW A



APPROXIMATE LOCATIONS OF SERVICES

- |    |  |
|----|--|
| 1  | ELECTRICAL CONTROL BOX                     |
| 2  | GAS INLET 3/4" NPT (7"W.C. to 14"W.C.)     |
| 3  | GAS EXHAUST PIPE 6" DIA.                   |
| 4  | STEAM INLET 1/2" NPT                       |
| 5  | STEAM CONDENSATE RETURN 3/4" NPT           |
| 6  | CNP COMPRESSED AIR INLET 1/2" NPT          |
| 7  | EXHAUST BLOWER OUTLET                      |
| 8  | FRESH WATER INLET 1" NPT                   |
| 9  | DRAIN VALVE 2"NPT FOR 480, 3" FOR 60 & 720 |
| 10 | OIL SKIMMER VALVE 1 1/2" NPT               |

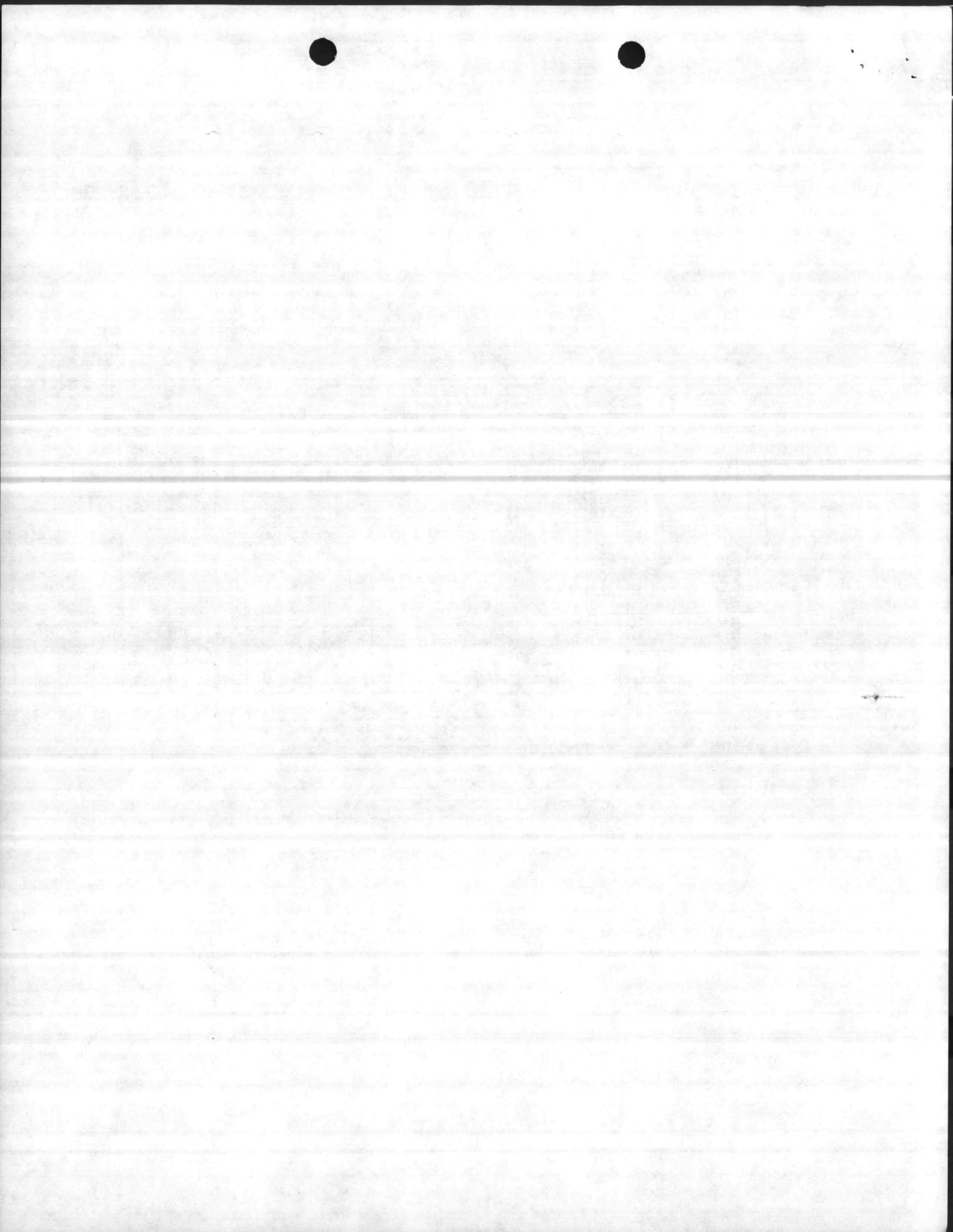
AMPERAGE CHART (AMPS)		TOTAL POWER REQD IN KW			
		15 KW	20 KW	63 KW	68KW
POWER SUPPLY	575V/3PH/60HZ	15	20	63	68
	460V/3PH/60HZ	19	25	79	85
	230V/3PH/60HZ	38	50	153	171
	380V/3PH/50HZ	23	30	96	103



SPECIFICATIONS &  
DIMENSIONS FOR  
TYPHOON HD  
DOUBLE RECIRCULATING STAGE

MODEL	DIMENSIONS						SHIPPING WEIGHT IN 1000'S LBS (approx)	SOLUTION HEATING MAX. INPUT		TURBIDABLE DRIVE MOTOR IN H.P.	EXHAUST BLOWER CAP IN C.F.M. @ 1" S.P.	EXHAUST BLOWER MOTOR IN H.P.	TOTAL POWER REQ. IN KW (electric heat)	TOTAL POWER REQ. IN KW (gas or steam heat)	1st STAGE			2nd STAGE					
	A	B	C	D	E	F		ELECTRIC IN KW	GAS IN 1000'S BTU/HR						STEAM IN LBS/HR	PUMP CAPACITY IN U.S.G.P.M. @ 70 PSI	PUMP MOTOR IN H.P.	NUMBER OF NOZZLES	TANK CAPACITY IN U.S.G.	PUMP CAPACITY IN U.S.G.P.M. @ 60 PSI	PUMP MOTOR IN H.P.	NUMBER OF NOZZLES	TANK CAPACITY IN U.S.G.
46-48	1000-2000	104	48	89	130	38	42	48	400	240	0.5	500	0.5	63	15	225	15	22	420	100	7.5	12	200
46-60	1000-2000	116	60	89	130	38	42	48	400	240	0.5	500	0.5	63	15	225	15	26	420	100	7.5	12	200
46-72	1000-2000	128	72	89	130	38	42	48	400	240	0.5	500	0.5	68	20	300	20	30	420	100	7.5	12	200
46-48	5000	108	48	92	130	39	47	48	400	240	0.75	500	0.5	63	15	225	15	22	420	100	7.5	12	200
46-60	5000	120	60	92	130	39	47	48	400	240	0.75	500	0.5	63	15	225	15	26	420	100	7.5	12	200
46-72	5000	132	72	92	130	39	47	48	400	240	0.75	500	0.5	68	20	300	20	30	420	100	7.5	12	200
60-48	1000-2000	105	48	102	152	41	42	48	400	240	0.5	500	0.5	63	15	225	15	24	550	100	7.5	12	200
60-60	1000-2000	117	60	102	152	41	42	48	400	240	0.5	500	0.5	68	20	300	20	28	550	100	7.5	12	200
60-72	1000-2000	129	72	102	152	41	42	48	400	240	0.5	500	0.5	68	20	300	20	32	550	100	7.5	12	200
60-48	5000	109	48	106	152	42	47	48	400	240	0.75	500	0.5	63	15	225	15	24	550	100	7.5	12	200
60-60	5000	121	60	106	152	42	47	48	400	240	0.75	500	0.5	68	20	300	20	28	550	100	7.5	12	200
60-72	5000	133	72	106	152	42	47	48	400	240	0.75	500	0.5	68	20	300	20	32	550	100	7.5	12	200
72-48	1000-2000	106	48	120	168	56	42	48	400	240	0.5	0000	1.0	63	15	225	15	26	748	100	7.5	12	390
72-60	1000-2000	118	60	120	168	56	42	48	400	240	0.5	0000	1.0	68	20	300	20	30	748	100	7.5	12	390
72-72	1000-2000	130	72	120	168	56	42	48	400	240	0.5	0000	1.0	68	20	300	20	34	748	100	7.5	12	390
72-48	5000	111	48	123	168	57	48	48	400	240	0.75	0000	1.0	63	15	225	15	26	748	100	7.5	12	390
72-60	5000	123	60	123	168	57	48	48	400	240	0.75	0000	1.0	68	20	300	20	30	748	100	7.5	12	390
72-72	5000	135	72	123	168	57	48	48	400	240	0.75	0000	1.0	68	20	300	20	34	748	100	7.5	12	390

\* ADD 6" WITH DIVERTED RINSE  
Design and specifications subject to change without notice.



Commanding Officer  
2nd Maintenance Battalion  
Page 4

F.O.B.: Prepaid on orders totalling \$1000 or more; otherwise, F.O.B.  
Greenville, SC

Terms: Net 30 days.

Discussion

The need for two washers has been dictated by the materials and construction of the parts being washed -- All steel parts to be cleaned in washer #1, and power rinsed, leaving a rust preventative film. Parts made of aluminum, brass, zinc, or other "reactive" metals to be cleaned in washer #2 and also power rinsed with corrosion preventative.

In proposing washers with the power heated rinse (second stage), we are eliminating the need for the fresh water rinse ( any type), and the DEMA injector on said rinse cycle.

The pressure and higher volume delivered by the 30 HP pump will dislodge the tough soils encrusted on the outside of the blocks or transmissions. Since the discharge is split into 36 nozzles, this higher volume will ensure adequate impinging force in contact with the soiled surfaces.

In fabrication, we plan to make the vertical headers in two sections, with "T" at the halfway mark and the unused branch of the "T" plugged/capped, when not being used. Should you need to wash parts (other than the tank transmission case), not requiring over 48" work heights, the upper horizontal header can be lowered to the midway "T", the plug/cap relocated, and the spray pattern resulting will be much more concentrated.

All the above details were reviewed with the personnel who came for our test cleaning, and they fully understand the flexibility this offers, and the reasons we have included it.

Intex appreciates the interest in the equipment systems we distribute, and we look forward to being present for "start-up" in the near future.

Please do not hesitate to call if there are questions on any details of this proposal.

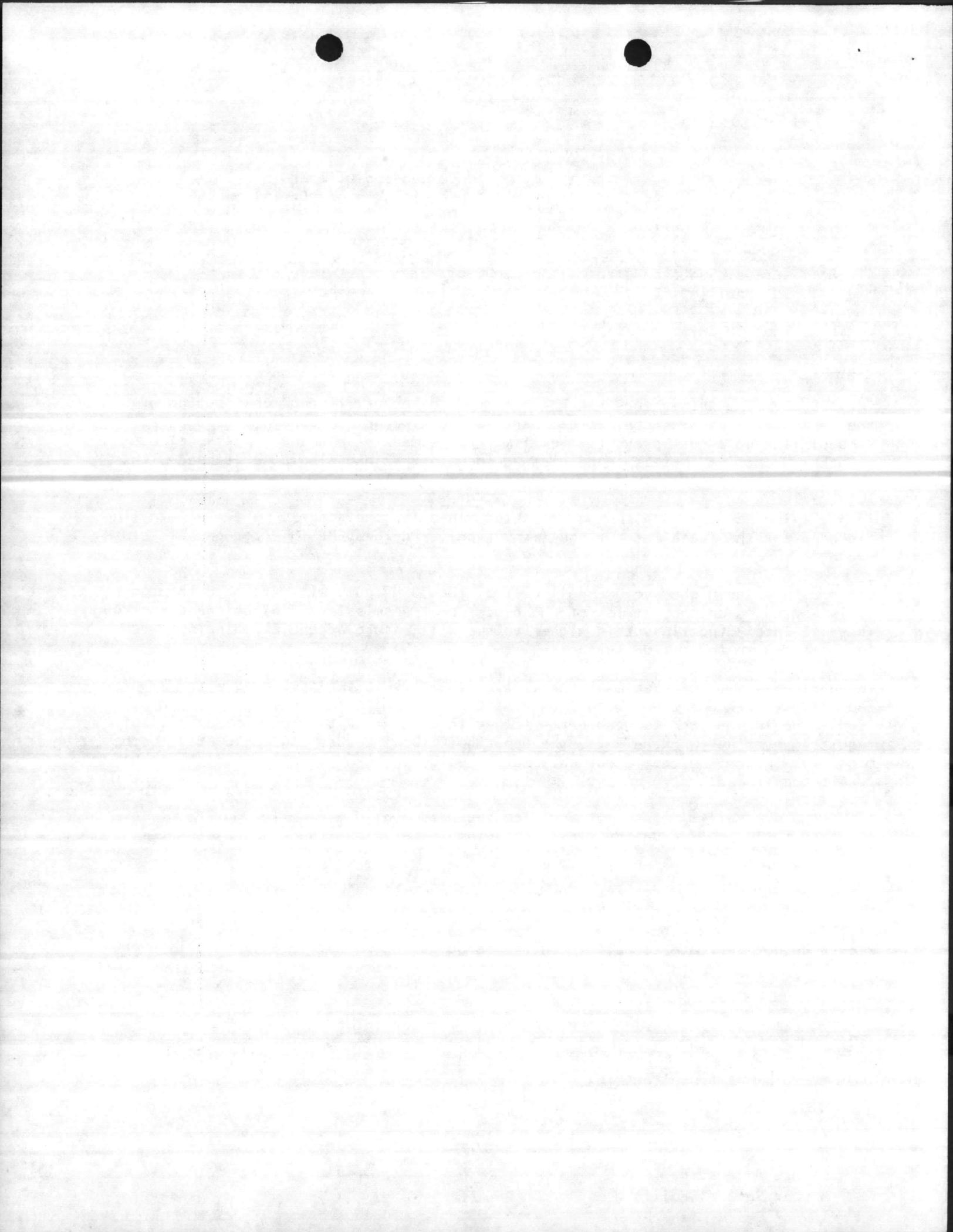
Cordially,

  
Robert R. Streeton  
Custom Equipment Consultant

RRS:bn

Enclosure

cc: Mr. Tom Cole  
Lieut. Al Austin  
Master Sgt. Al Hollis



8 - <u>Sludge Baffle</u> - To minimize sludge passing into sewer during tank draining phase .....	\$	86.00	\$	70.52
9 - <u>Parts Basket</u> - Medium Duty 48" diamter x 8" high basket, with lid, for small parts .....	\$	360.00	\$	295.20 Ea.
10 - <u>Spray Nozzles</u> - 304 Stainless nozzles in lieu of mild steel; will last longer prior to erosion of orifice size, holding pressure as designed. 36 each in power wash and 12 each in power rinse.				
Price add-on .....	\$	6.00	\$	3.28 Ea.

F.O.B.: USA Pricing - Jacksonville, FL  
 Canadian Pricing - Montreal, Canada

Terms: Custom units require 25% with order; balance (75%) net 30 days from invoice date.

Availability: Normally ten (10) to twelve (12) weeks after receipt of order. Scheduled date of shipment is furnished with order acknowledgement.

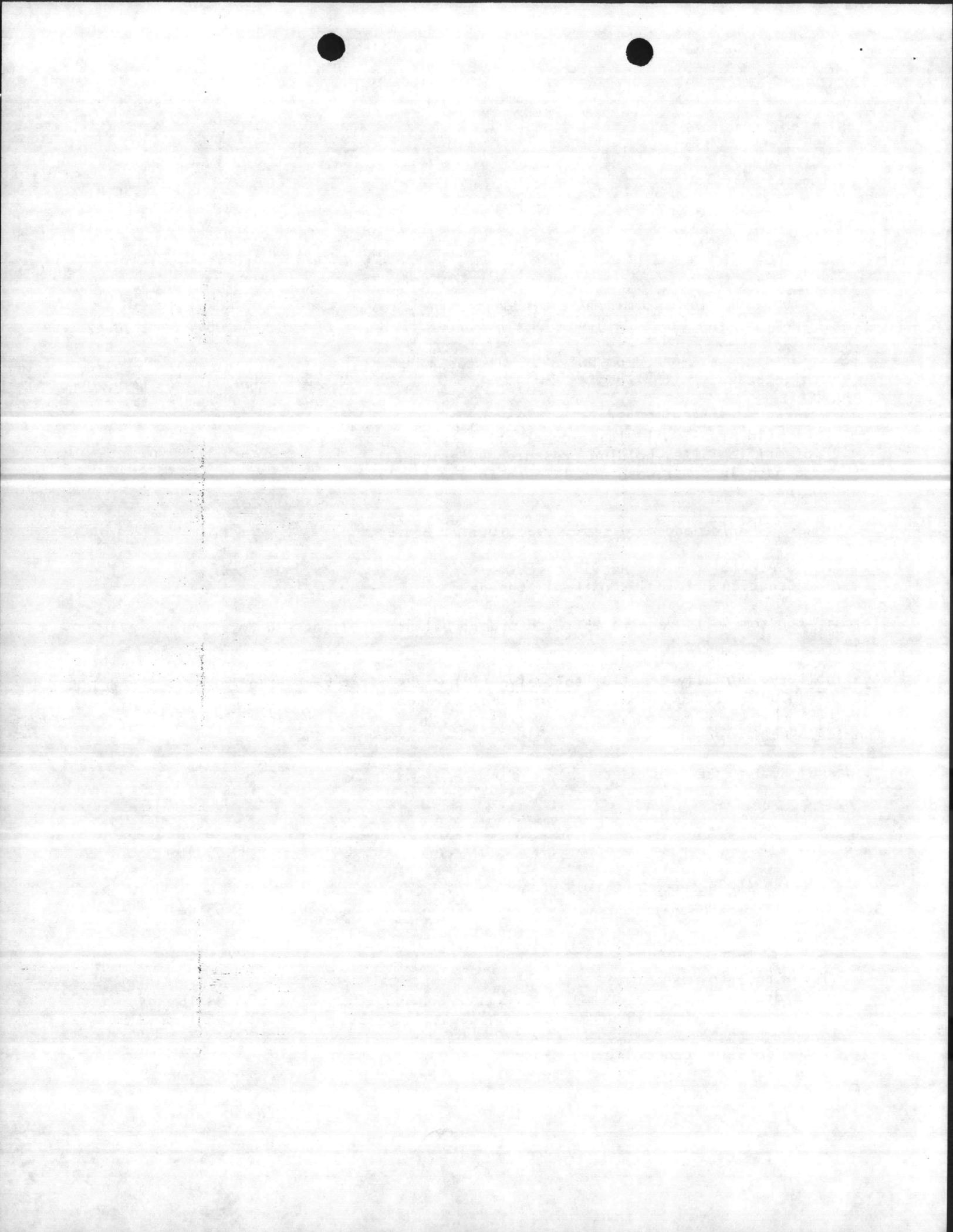
Chemical Requirements:

Washer No. 1 - Ferrous parts only

Intex 8661 in Wash Stage				
450# drum pack 1 to 5 drums .....	\$			.74 lb
6 to 10 drums .....	\$			.71 lb
Intex 8215 in second (rinse) stage				
55 gallon drums .....	\$			9.53 gal

Washer No. 2 - Aluminum & Multi-Metal

Intex 8679 in wash stage				
425# drum pack 1 to 5 drums .....	\$			.95 lb
6 to 10 drums .....	\$			.92 lb
Intex 8215 in second (rinse) stage				
55 gallon drums .....	\$			9.53 gal

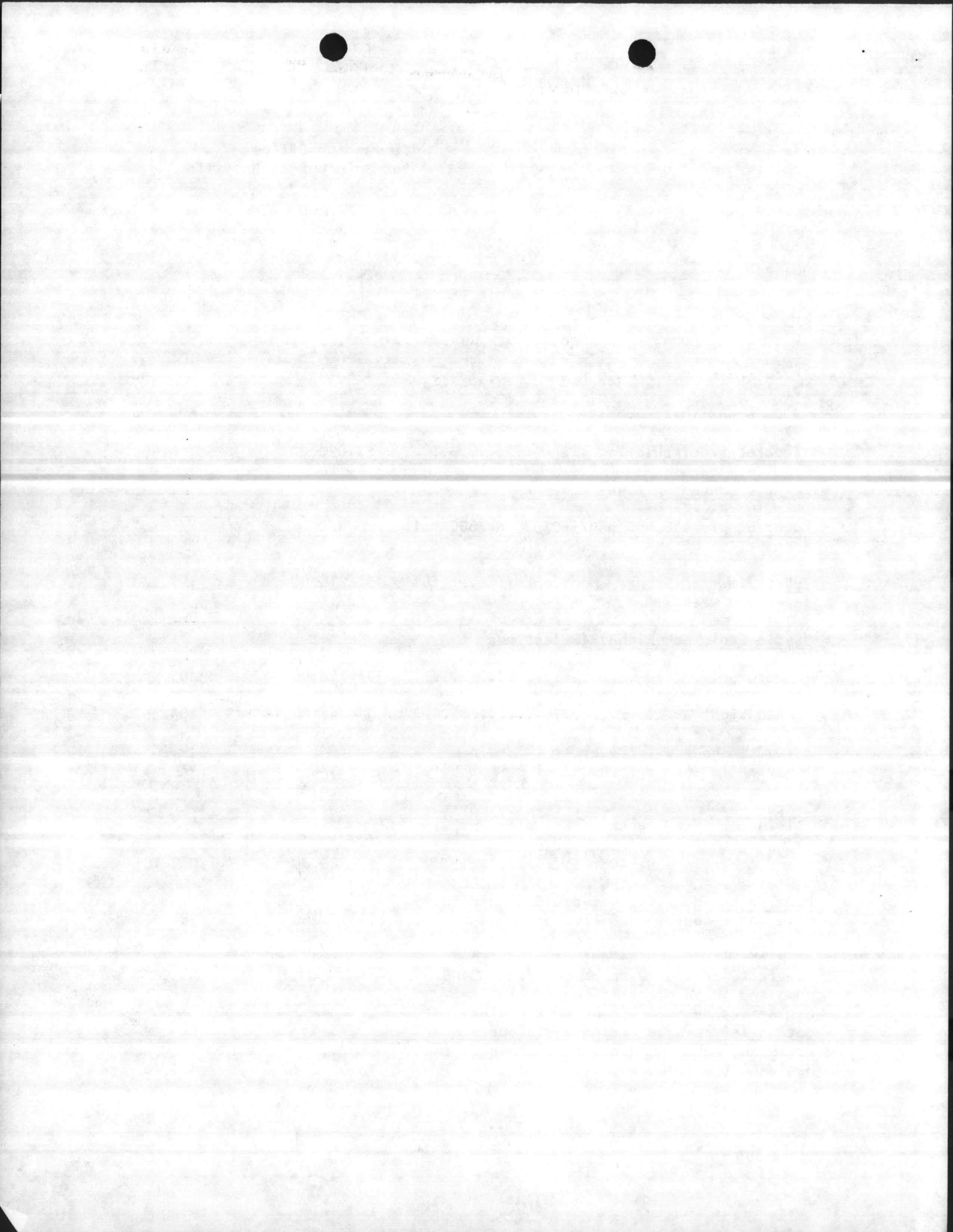


Price on one (1) of the preceding basic units is as follows:

	<u>FOB USA</u>	<u>FOB Montreal</u>
- With 20 HP Pump, 48 KW Heat .....	\$23,130.00	\$18,966.60
** - Or with 30 HP Pump, 60 KW Heat .....	\$26,130.00	\$21,966.60
+ 5000 pound load capacity .....	\$ 3,420.00	\$ 2,804.40
+ Separate recirculating stage .....	\$7,020.00	\$ 5,756.40

Requested/Recommended Optional Features

1 - <u>Power Supply</u> 440/460/480/550/575 or 600 Volt, 3 phase, 60 Hz	N/C	N/C
2 - <u>7-Day Timer</u> to program heat on/off over full seven day week.	\$ 216.00	\$ 177.12
3 - <u>"Cycle Finished" Signal</u> (Select one)		
Horn .....	\$ 248.00	\$ 203.36
Red Light .....	\$ 248.00	\$ 203.36
4 - <u>Automatic Pneumatic Diverter</u> to drain included in secondary power rinse option .....	N/C	N/C
5 - <u>Exhaust Blower</u> - Suction duct with moisture eliminator, heavy guage fabricated radial blower with 3-phase motor, V-belt drive, motor controls and timer .....	\$1,305.00	\$ 1,070.10
6 - <u>Head Rack</u> - Heavy Duty type, designed to hold up to four (4) D8 tractor heads .....	\$1,200.00	\$ 984.00
**7 - With the increased height of work, the manufacturer highly recommends the 30 HP pump and 60 KW electric heating in lieu of the standard 20 HP and 48 KW. This option is repeated for emphasis, but the price add-on is already shown above in the basic unit pricing .....	\$3,000.00	\$ 3,000.00

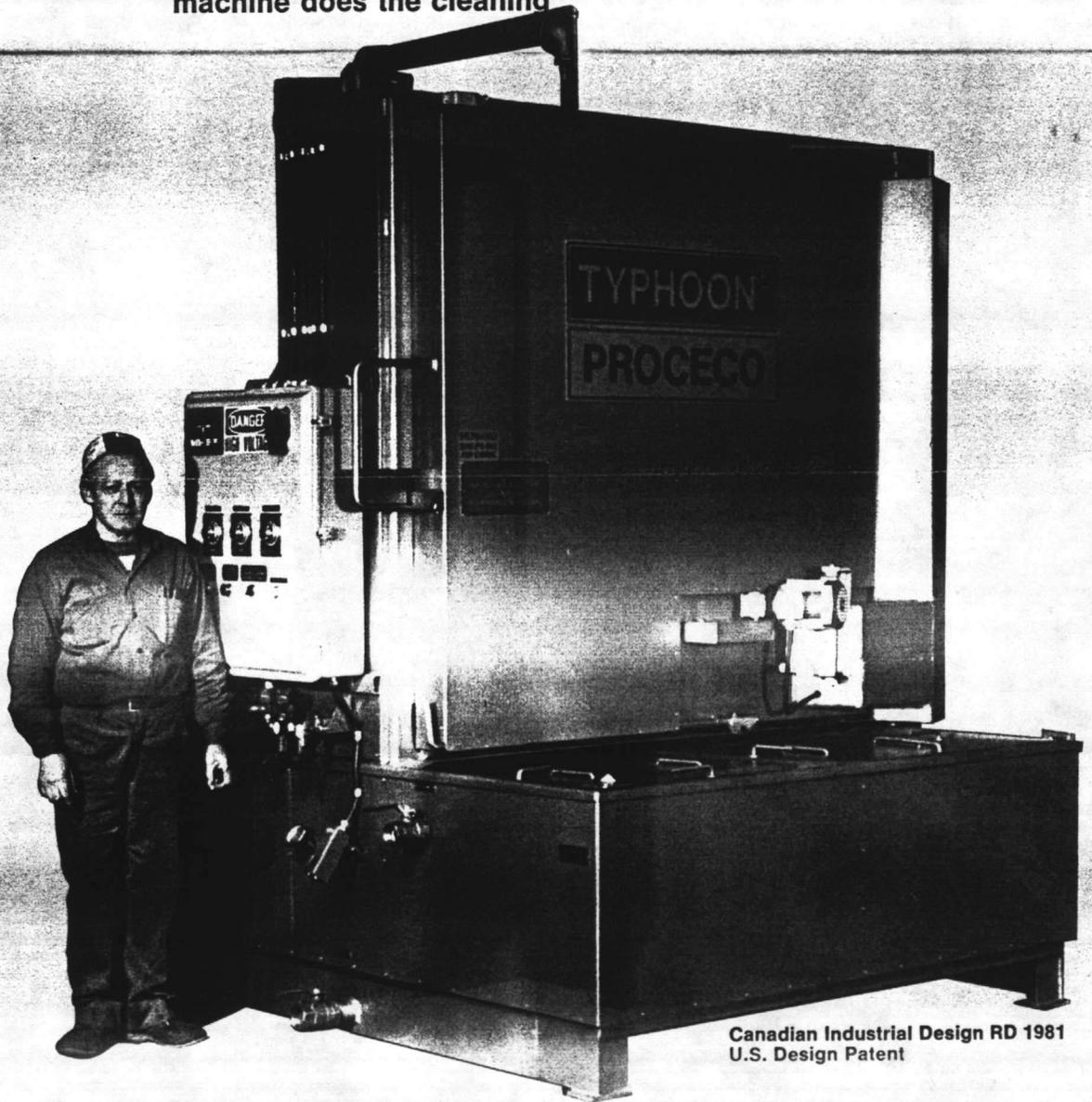


# TYPHOON<sup>®</sup>-HD

## HEAVY DUTY POWER SPRAY WASHER

Why consider  
a spray  
cleaner ?

- fast cleaning due to combined chemical, heat and mechanical scrubbing action of jets
- recirculation principle preserves chemical, heat and water
- insulation of machine keeps heat losses at a minimum
- automatic cycle timer permits operator to do other work while machine does the cleaning



Canadian Industrial Design RD 1981  
U.S. Design Patent

**MANUFACTURING  
PLANTS:**

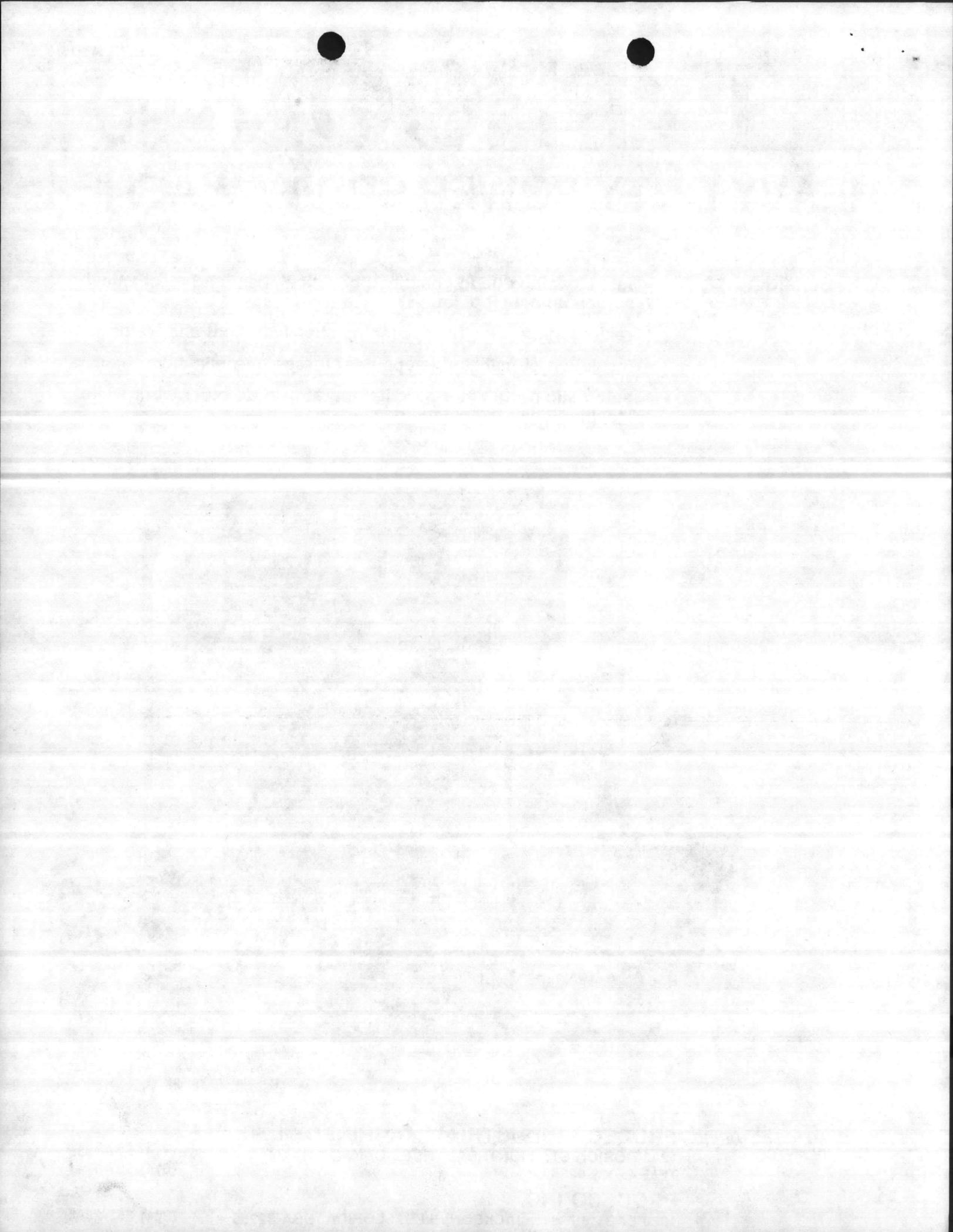
**PROCECO INDUSTRIAL MACHINERY LTD.**  
1243 DORION ST., MONTRÉAL, QUE., CANADA H2K 4A2 -  
TELEX: 055-62262

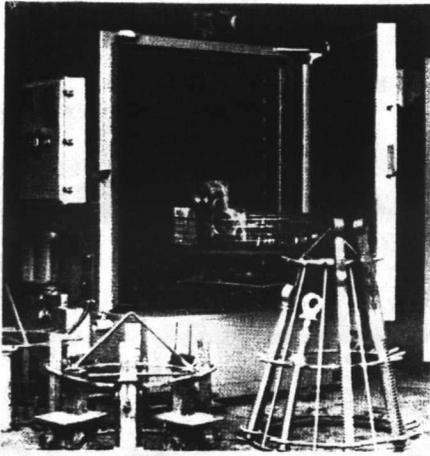
(514) 527-1335  
(514) 527-8741

**PROCECO INC.**

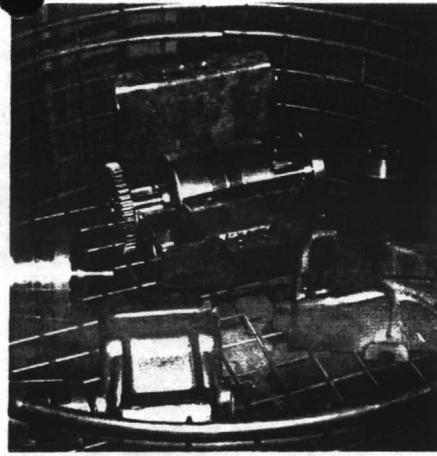
1020 EAST 8th ST., JACKSONVILLE, FLORIDA, USA 32206 -

(904) 355-2888

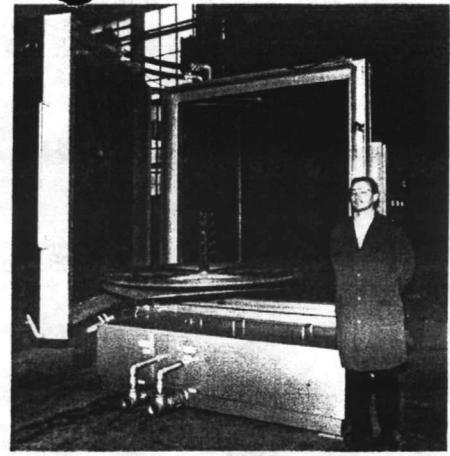




HEAVY DUTY DEGREASING



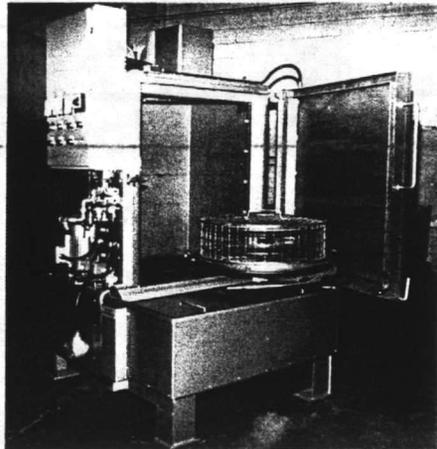
GLUE POT CLEANING AND RINSING



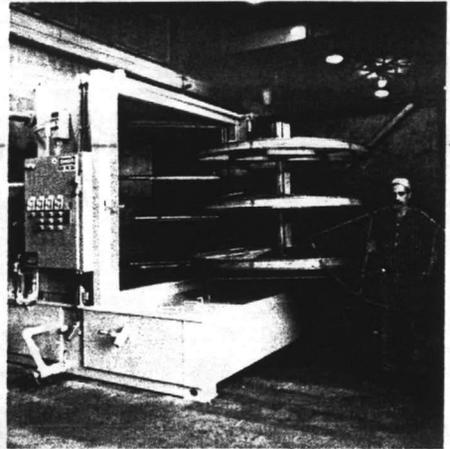
INKPOT CLEANING WITH 2 STAGES SPRAY THROUGH TURNTABLE CENTER



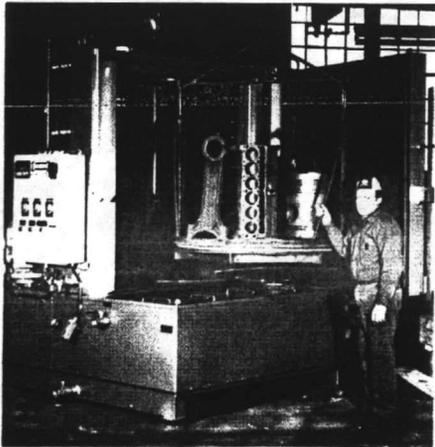
CLEANING OF STEEL AND ALUMINUM AIR BLOWERS



STAINLESS STEEL MACHINE FOR NUCLEAR DECONTAMINATION OF TOOLS



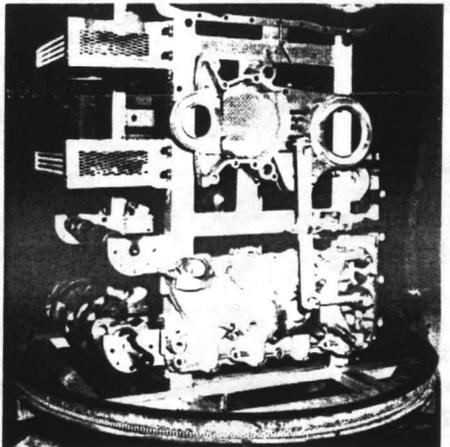
3-LEVEL TURNTABLE FOR CLEANING OF IMPREGNATION MOULD BOXES



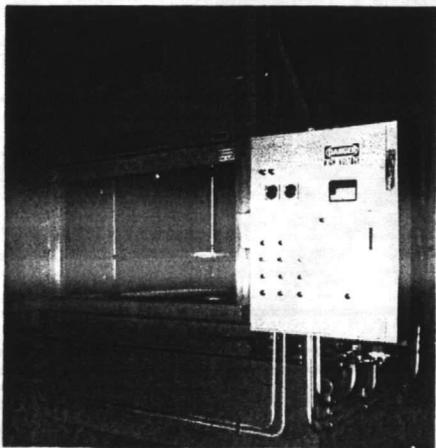
CLEANING OF ENGINE PARTS ON HEAVY DUTY RACK



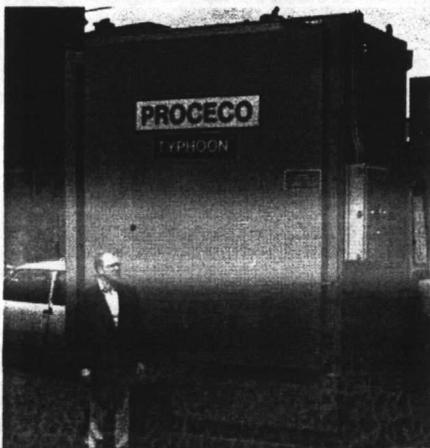
TYPHOON EXPRESS FOR CONVEYORIZED PARTS FLOW. REQUEST BULLETIN 25



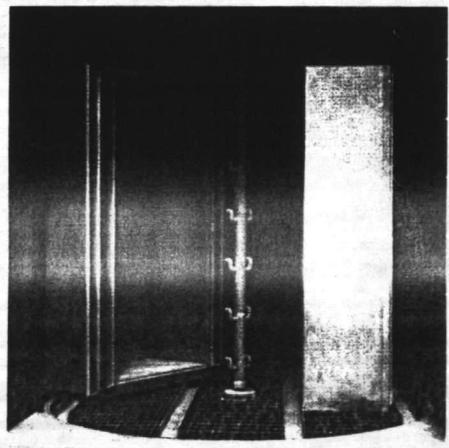
CLEANING OF ENGINE COMPONENTS ON SPECIAL FIXTURE



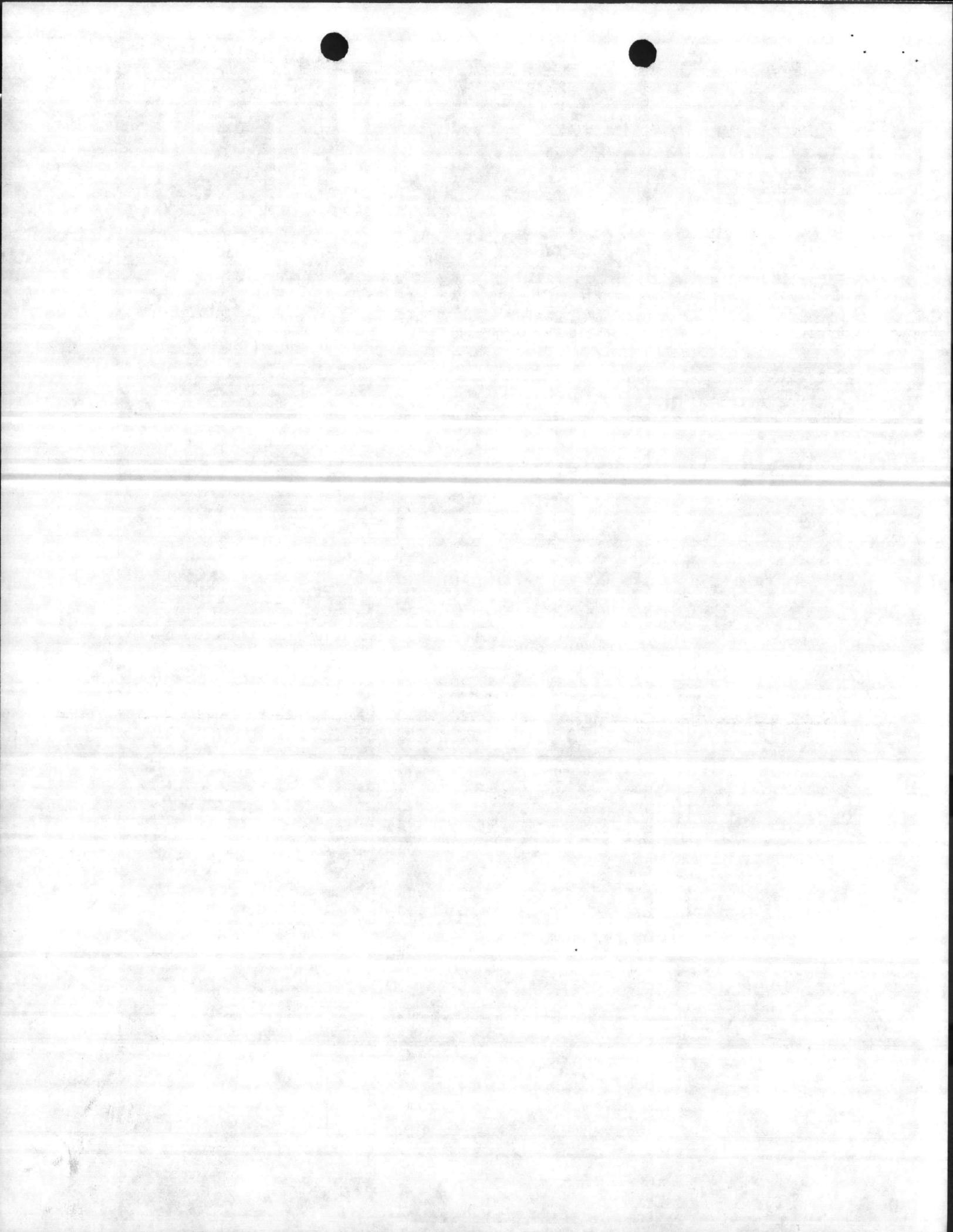
FIXED TURNTABLE TYPHOON WITH

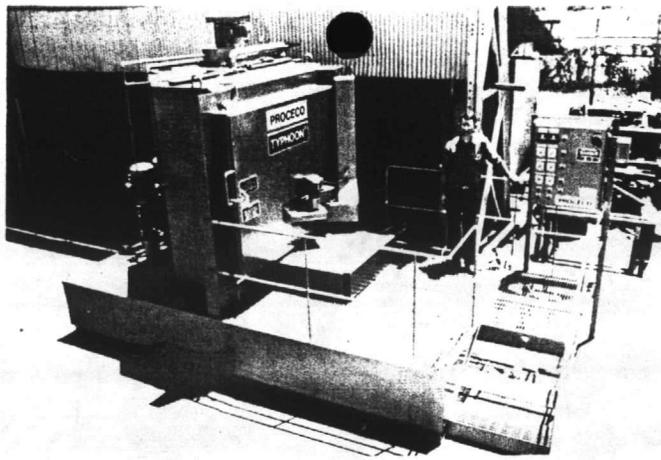


LARGE FIXED TURNTABLE WASHER

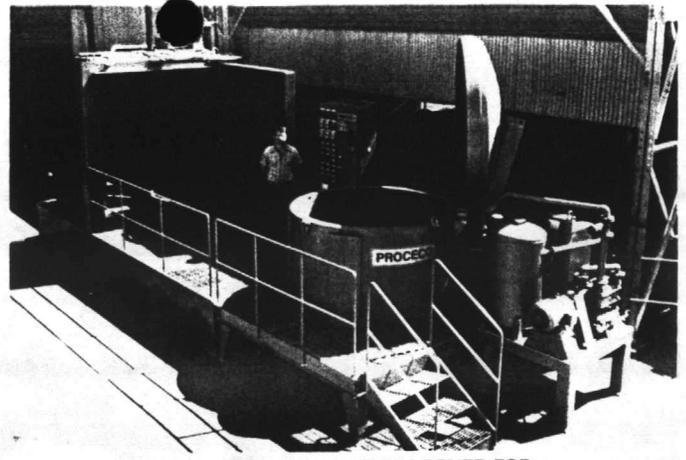


CLEAN PHOSPHATE LARGE PARTS PRIOR

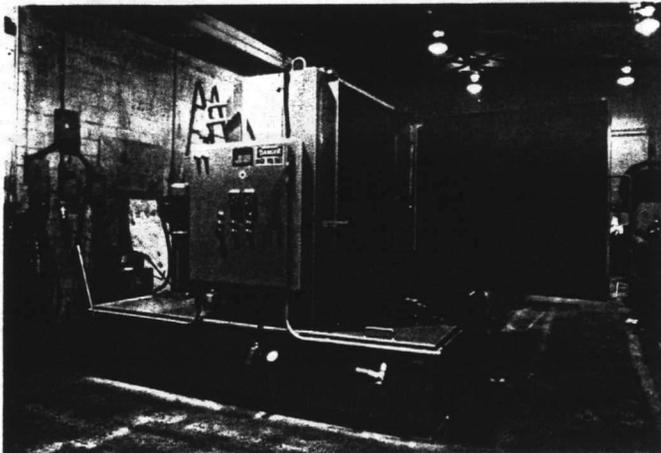




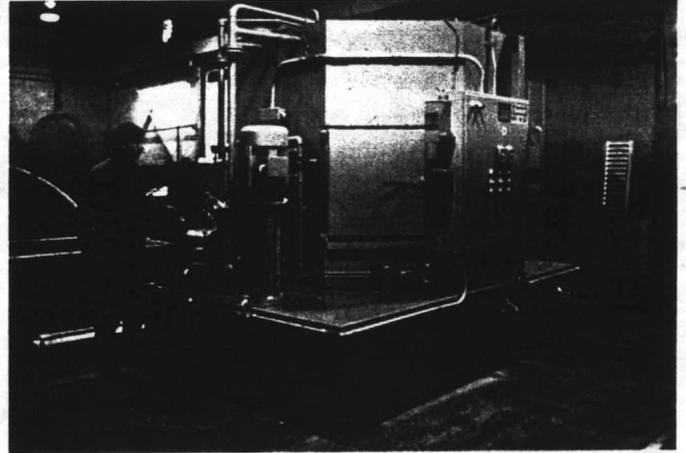
SPECIAL 2-STAGE MACHINE WITH EXTRA LARGE TANK CAPACITY.



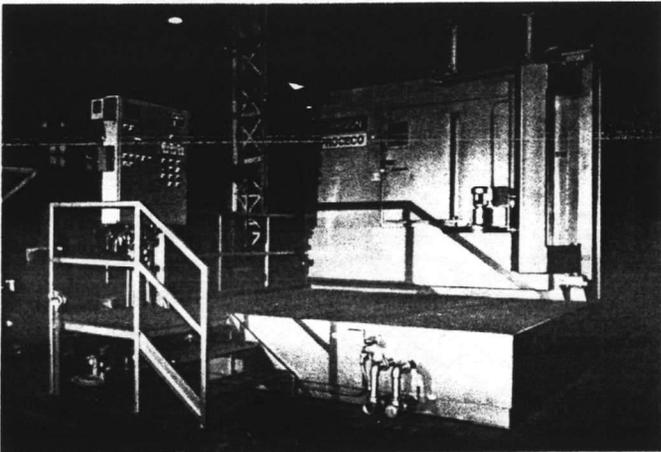
SPECIAL 2-STAGE MACHINE WITH VACUUM DRYER FOR ELECTRIC MOTORS/GENERATORS.



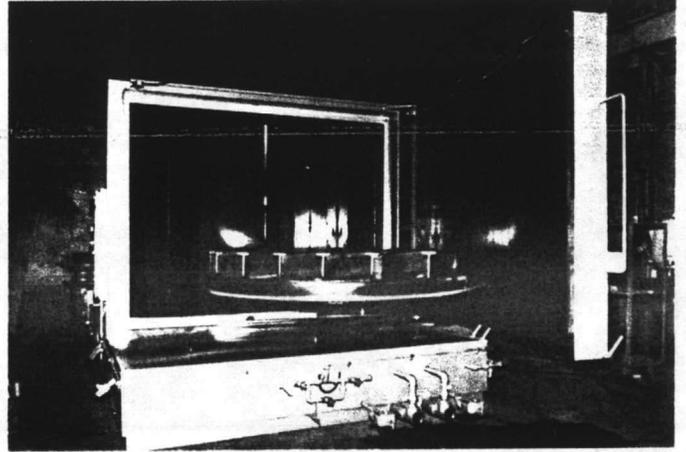
STANDARD 2-STAGE MACHINE FOR PRE-PAINT FINISHING. FRONT VIEW



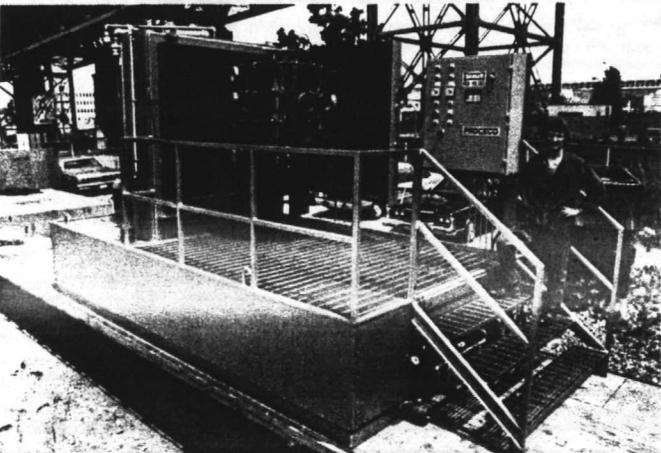
STANDARD 2-STAGE MACHINE REARVIEW. SIDE ACCESS DOOR



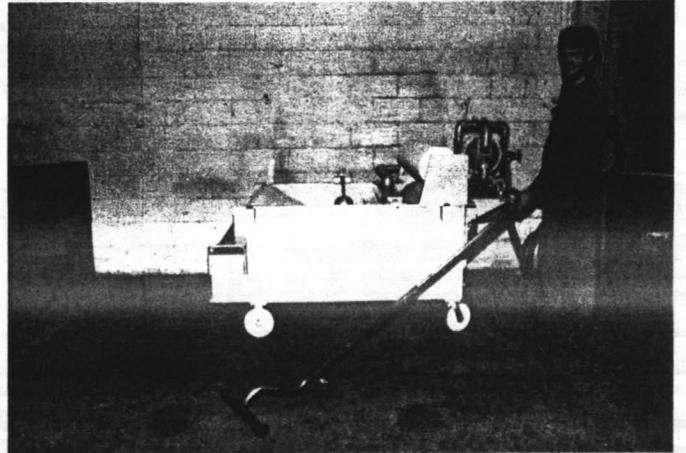
2-STAGE DIE CLEANING MACHINE 96" DIA., 10,000 lbs. TURNTABLE, POWER DOOR



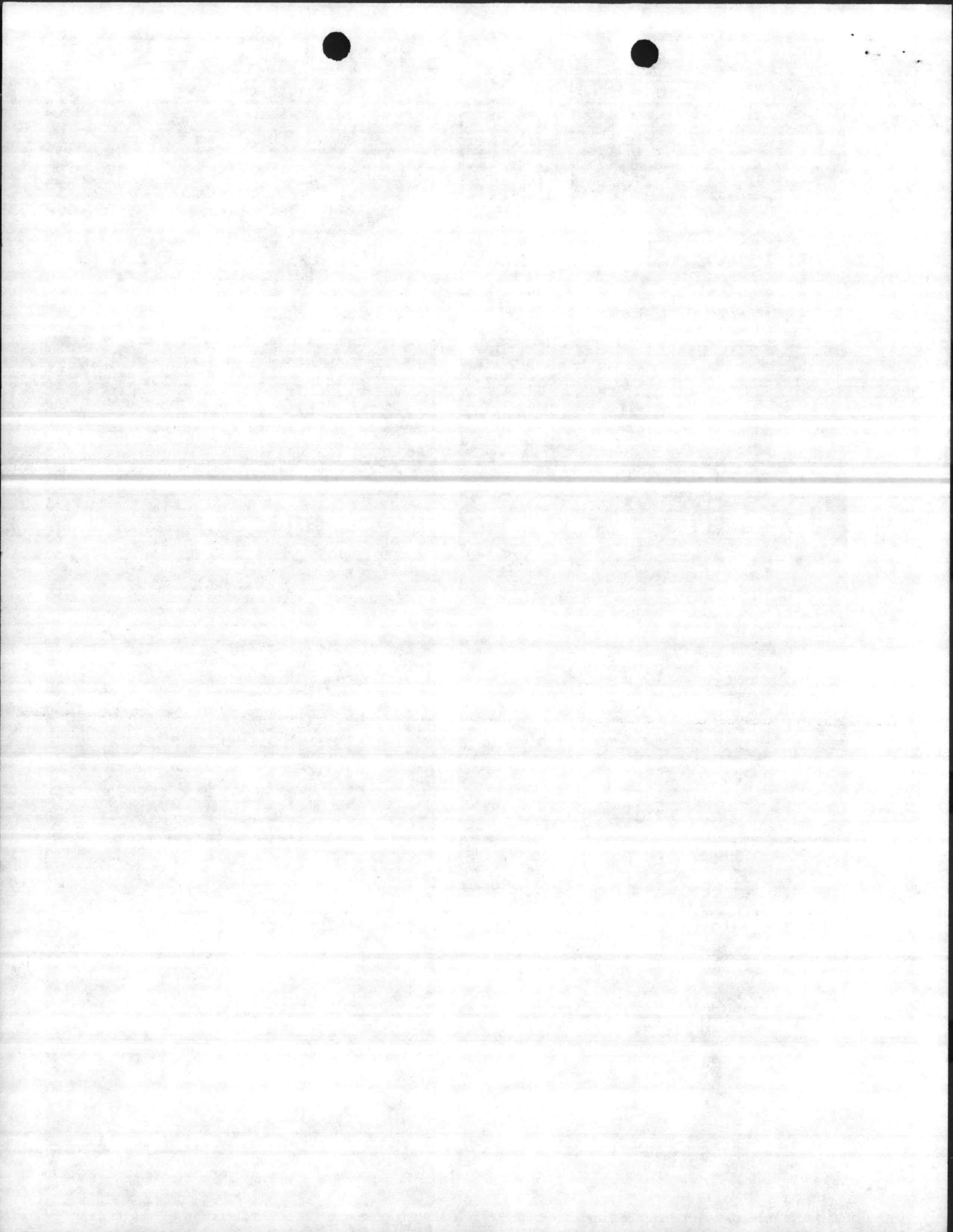
2-STAGE DIE CLEANING SYSTEM 84" DIA., 5000 lbs. TURNTABLE (FORKLIFT LOADING)



2-STAGE BEARING WASHER, LARGE TANKS, WALK ON PLATFORM



MODEL DB-48 PORTABLE DESLUDGING UNIT FOR SLUDGE REMOVAL FROM TANKS



# Compare outstanding

## TYPICAL INDUSTRIAL APPLICATIONS INCLUDE:

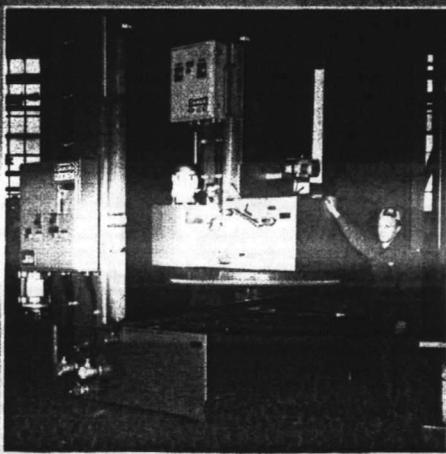
- 1) REMOVING MACHINING CHIPS
- 2) DEOILING AND DEGREASING
- 3) PAINT STRIPPING
- 4) RUST PROOFING
- 5) RINSING
- 6) PHOSPHATING PRIOR TO PAINTING

## TYPICAL RAILWAY APPLICATIONS INCLUDE:

- 1) CLEANING OF ROOTS BLOWERS
- 2) CLEANING OF POWER ASSEMBLY PARTS SUCH AS CYLINDER HEADS, CYLINDER LINERS, PISTONS, CONNECTING RODS
- 3) CLEANING OF LOCOMOTIVE TRACTION MOTOR ARMATURES AND FRAMES
- 4) CLEANING OF WATERPUMPS, BEARINGS, BEARING HOUSINGS, ETC.
- 5) CLEANING OF ELECTRIC MOTORS
- 6) CLEANING OF AIR BRAKE VALVES AND COMPONENTS, ETC.

## TYPICAL AUTOMOTIVE APPLICATIONS INCLUDE:

- 1) CLEANING OF AUTOMOTIVE ENGINE BLOCKS, HEADS AND COMPONENTS
- 2) CLEANING OF TRANSMISSIONS
- 3) CLEANING OF DIESEL ENGINE BLOCKS, HEADS AND COMPONENTS
- 4) CLEANING OF AXLES, DIFFERENTIALS, DRIVE TRAINS, WHEELS
- 5) CLEANING OF GENERATORS, ALTERNATORS, GOVERNORS, STARTERS, WATER PUMPS, BRAKES, CLUTCHES, ETC.



- Tank and Cabinet fabricated of  $\frac{3}{8}$ " or  $\frac{1}{2}$ " steel plate. All welded construction
- One Inch Polyurethane insulation plus steel outer shell, two component epoxy finish

Fused Disconnect Switch  
Only one power connection required

Cycle Timers for wash, rinse and exhaust

Push Button — Pilot Light System On and Off

Turntable Power Jog with door in open position for easy loading and unloading

Safety Doorlatch

Temperature Indicator

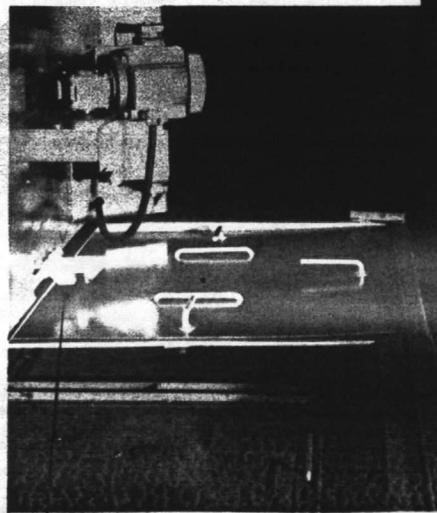
Thermostat for automatic temperature control

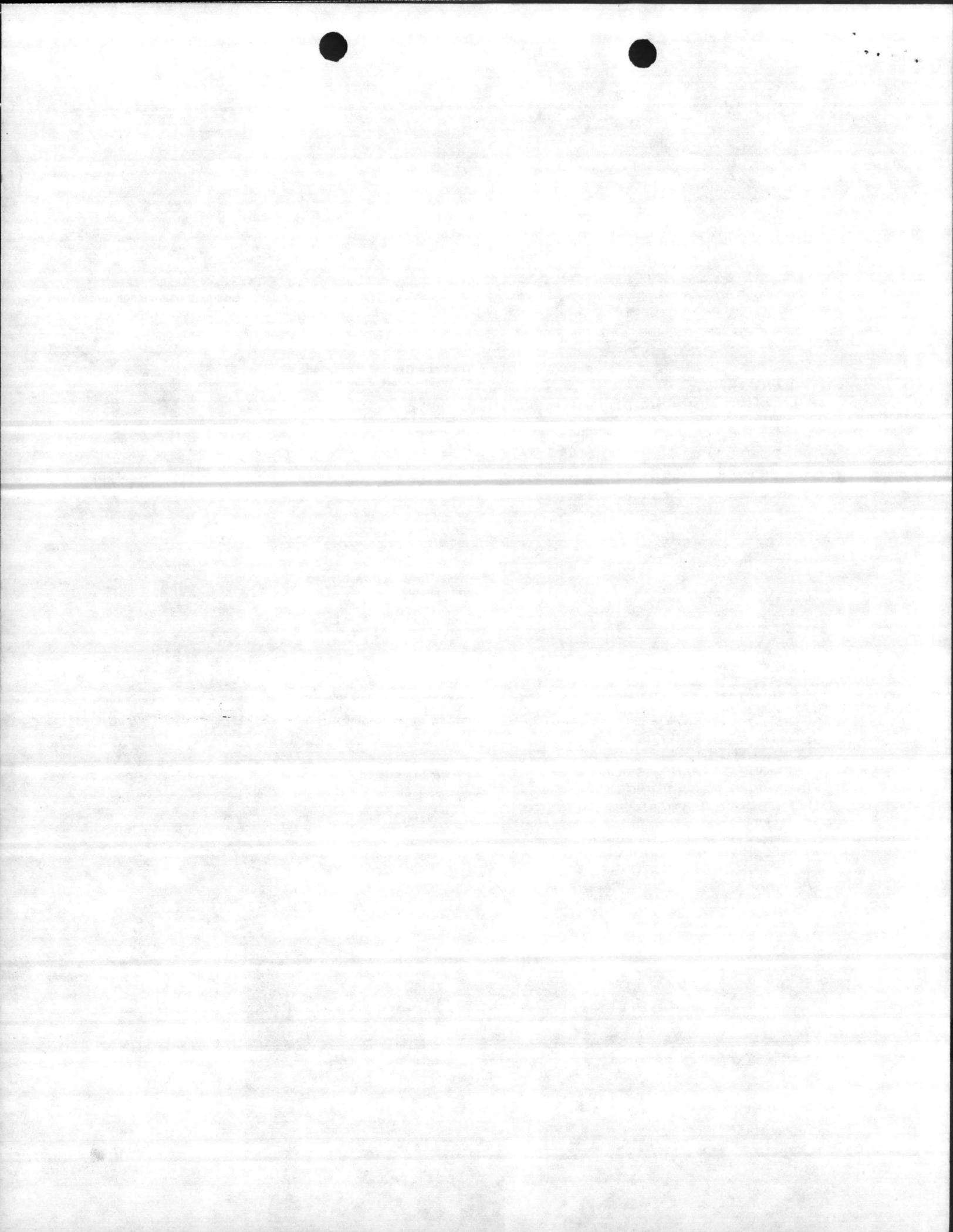
Oil Skim Overflow Valve

Safety Switch  
Shuts off pump when door is open

Drain Valve

Turntable Drive





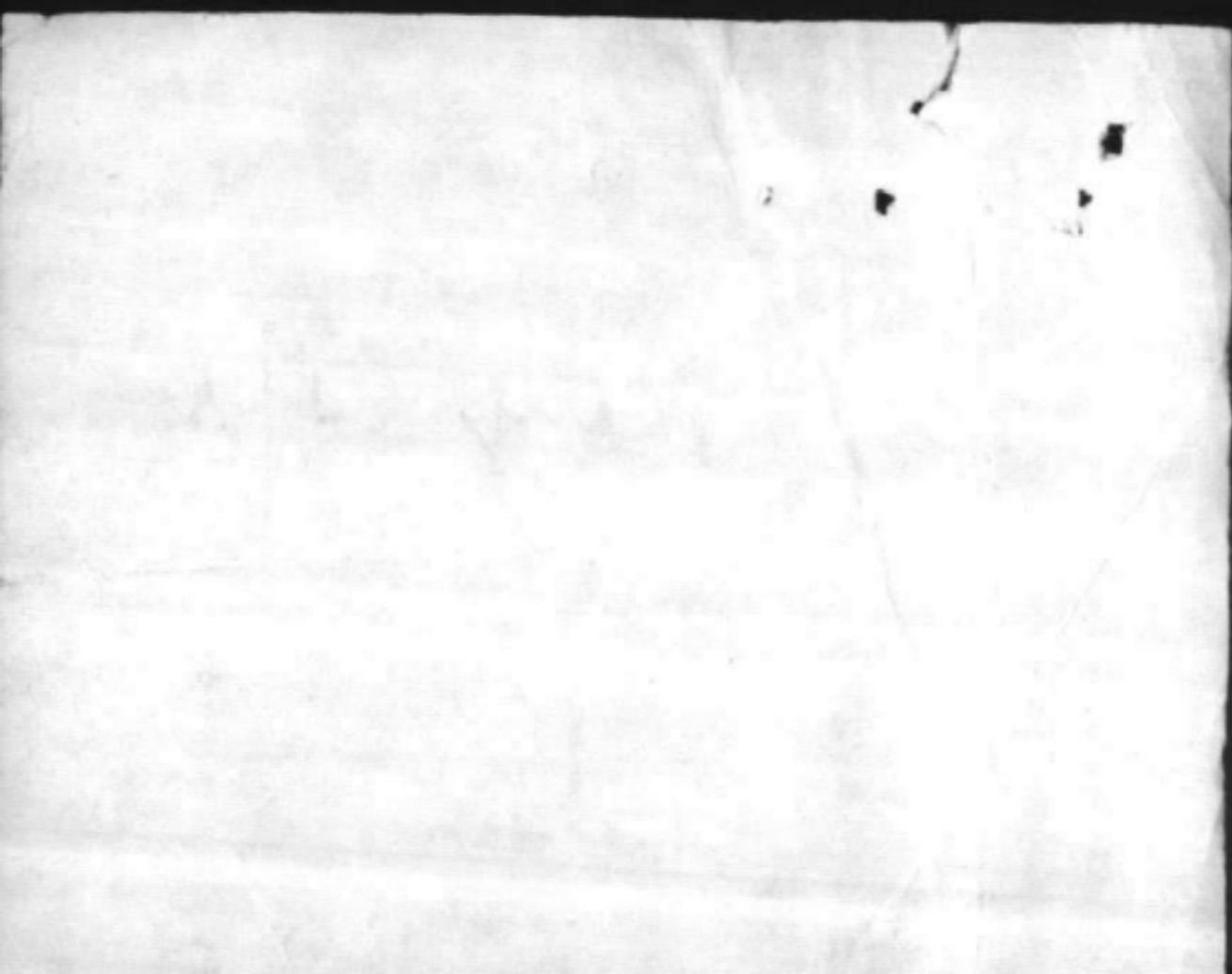
PLANNING BRANCH ACTION CHIT

LOGGED BY: Mary ON 5/28

GENE \_\_\_\_\_

LARRY \_\_\_\_\_

FRED \_\_\_\_\_



**OLSEN ASSOCIATES, INC.**  
**ENGINEERS • ARCHITECTS • SURVEYORS**

WM. H. SIGMON, A.I.A.  
L. C. CHEEK, JR., P.E.  
J. C. BROWN, P.E.



P. O. BOX 10666  
TELEPHONE 919/834-0781  
1330 ST. MARY'S STREET  
RALEIGH, N. C. 27605

**ASSOCIATES:**

J. M. WALKER, R.L.S.  
J. H. MAYNARD, JR., P.E.  
K. L. HARROD  
R. E. HILDEBRAN, P.E.  
D. N. LEE, P.E.  
W. M. PEERY, A.I.A.  
J. W. JOHNSON, P.E.

May 23, 1985

Mr. Gene Jones  
Head, Planning Branch  
Public Works Office  
Building 1005  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

Subject: A/E Contract N62470-85-B-7922, FY87 MCON Project P-257  
Field Maintenance Complex  
Marine Corps Base, Camp Lejeune

Dear Mr. Jones:

Enclosed are the following items:

1. Three copies of minutes from the Predesign Conference held on May 16, 1985.
2. Three prints of the floor plan reflecting changes discussed at the Predesign Conference held on May 16, 1985.
3. Three prints of an alternate plan using bridge cranes in lieu of monorail hoists.

At the Predesign Conference there was a lengthy discussion as to the merits of a monorail hoist as opposed to bridge cranes as indicated on the definitive drawing. The result of this discussion was that the user preferred monorail hoists because of their ability to load and unload trucks from an extension of the monorail over the loading dock area. This preference was stated by the user with full awareness that monorail hoists would decrease the flexibility of hoisting operations within the building. We believe the user should give further consideration to the use of bridge cranes. We have therefore prepared the alternate plan enclosed for the user's consideration. The user should make a final decision regarding this hoisting equipment at this time since it may be impossible to allow him to change his mind at a later date. This decision should be made by the user immediately.



Mr. Gene Jones  
May 23, 1985

Page 2

Aside from the hoisting equipment, both floor plans are identical. The user should take a print of the floor plan with whichever hoisting system he selects and draw to scale thereon the complete equipment layout which he desires to use in this facility. We are enclosing scales for this purpose along with the drawings. The equipment layout should be done with good accuracy and to about the level of detail shown on the original definitive drawings. The user should also tabulate building service requirements associated with each piece of equipment. (Building service requirements include needs for water; air; electricity, including voltage and power requirements; steam; oils; etc.) This information should be returned to us no later than seven calendar days after receipt of the enclosed material. We are under tight deadline pressure from LANTDIV to perform this design contract. Delay in furnishing the requested information will prohibit us from meeting our design schedule.

In addition to the equipment layout, we must have from the user technical information for the following major items of equipment:

1. Dynamometer equipment, including plans for the interim dynamometer facility presently under design.
2. The solvent dip tank. User stated that a new solvent dip tank had been selected. We need technical manufacturer's data for the unit which he has selected.
3. The transmission test and run-in stand.

We also request that Lieutenant Colonel Murphy, Commanding Officer of the Second Maintenance Battalion, indicate in writing his approval of the floor plan and of the hoisting equipment (except for such minor changes as may be required in development of the project).

Thank you very much for your assistance in helping us to move this project forward promptly. Please contact me if you have questions regarding the enclosed material.

Yours very truly,

OLSEN ASSOCIATES, INC.



Dale N. Lee, P. E.

DNL/ps

Enclosures

cc: Mr. M. L. Bryant, P. E.

Mr. Gene Jones  
May 23, 1952

As far from the holding equipment, both floor plans are identical. The user should take a print of the floor plan with whichever holding system he selects and from it scale (reason the complete equipment layout which he desires to use in this facility). We are enclosing cables for this purpose along with the drawings. The equipment layout should be done with good accuracy and to about the level of detail shown on the original derivative drawings. The user should also indicate building service requirements associated with each piece of equipment. (Building service requirements include needs for water; air electricity, including voltage and power requirements; steam; etc.) This information should be returned to us no later than seven calendar days after receipt of the enclosed material. The 100% final holding program from LANTDIV to perform this design contract. Delay in furnishing the requested information will prohibit us from meeting our design schedule.

In addition to the equipment layout, we must have from the user the following information for the following major items of equipment:

1. Dimensional equipment, including plans for the interior dynamometer facility presently under design.
2. The solvent dip tank. User stated that a new solvent dip tank had been selected. We need technical manufacturer's data for the unit which has been selected.
3. The transmission fast and turn-in stand.

We also request that Lt. Col. Murphy, Commanding Officer of the Second Maintenance Battalion, indicate in writing his approval of the floor plan of the holding equipment (except for such minor changes as may be required in development of the project).

Thank you very much for your assistance in helping us to move this project forward promptly. Please contact me if you have questions regarding the enclosed material.

Yours very truly,

OLSEN ASSOCIATES, INC.

*[Signature]*  
Date: June 1, 1952

DNELSON

Enclosures

cc: Mr. M. L. Bryant, P. E.

NOTES FROM PREDESIGN CONFERENCE  
9:00 A.M., May 16, 1985  
CAMP LEJEUNE, NORTH CAROLINA

A/E Contract N62470-85-B-7922, FY87 MCON Project P-257  
Field Maintenance Complex  
Marine Corps Base  
Camp Lejeune, North Carolina

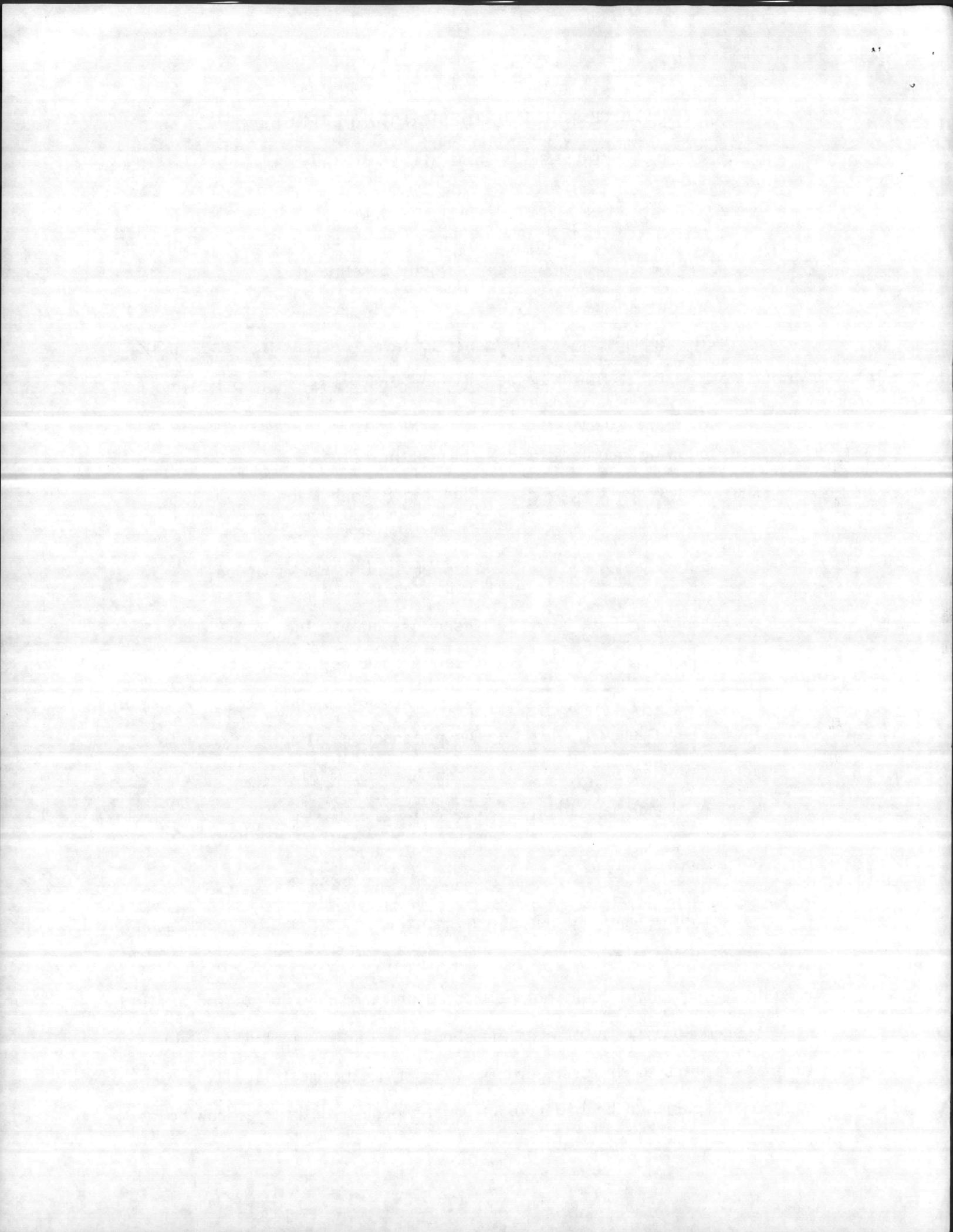
A predesign meeting was held at 9:00 a.m. on May 16, 1985, at the Public Works Office, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina, to discuss the design requirements of the subject project.

The following people attended the meeting:

Gene Jones	Planning Branch Manager Public Works Office Camp Lejeune
Fred Estes	Planner, Public Works Office Camp Lejeune
W. H. Sigmon	Olsen Associates, Inc.
W. M. Peery	Olsen Associates, Inc.
Dale N. Lee	Olsen Associates, Inc.
T. Barker Dameron	Olsen Associates, Inc.
Larry A. Tice	Olsen Associates, Inc.
Lieutenant Colonel Murphy	Commanding Officer Second Maintenance Battalion
First Lieutenant B. A. Nazaroff	Logistics Officer Second Maintenance Battalion

Several other military personnel from the Second Maintenance Battalion also attended the meeting. Their names are not recorded since the meeting signup sheet could not be located at the conclusion of the meeting.

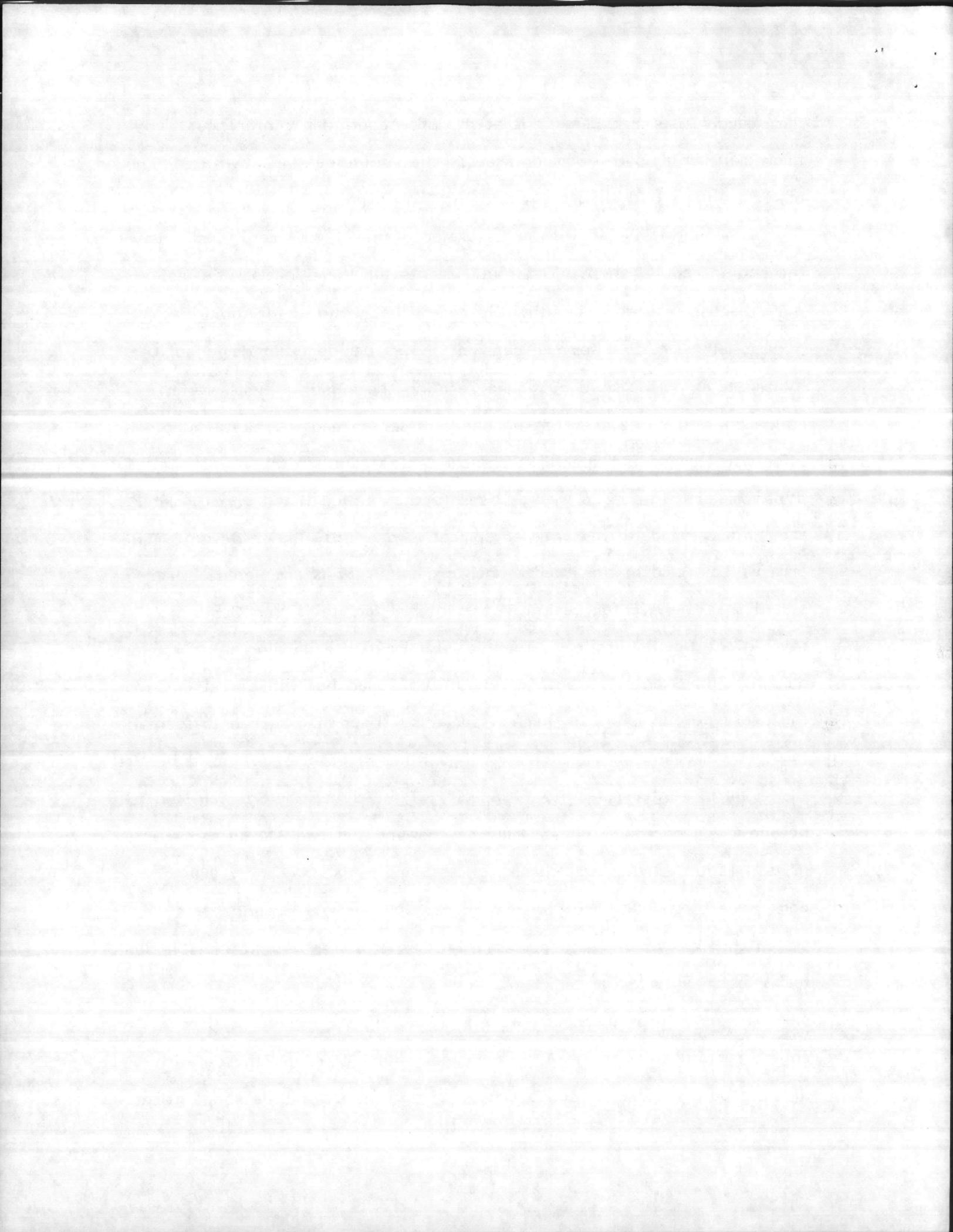
A preliminary floor plan of the shop area had been made available by Olsen Associates to the user for review prior to the meeting. This preliminary plan had been derived from the project definitive drawing and



from earlier user requests made at the pre-negotiation conference. The floor plan contains three major areas: the engine rebuild shop area, the power train rebuild shop area, and the MMU area.

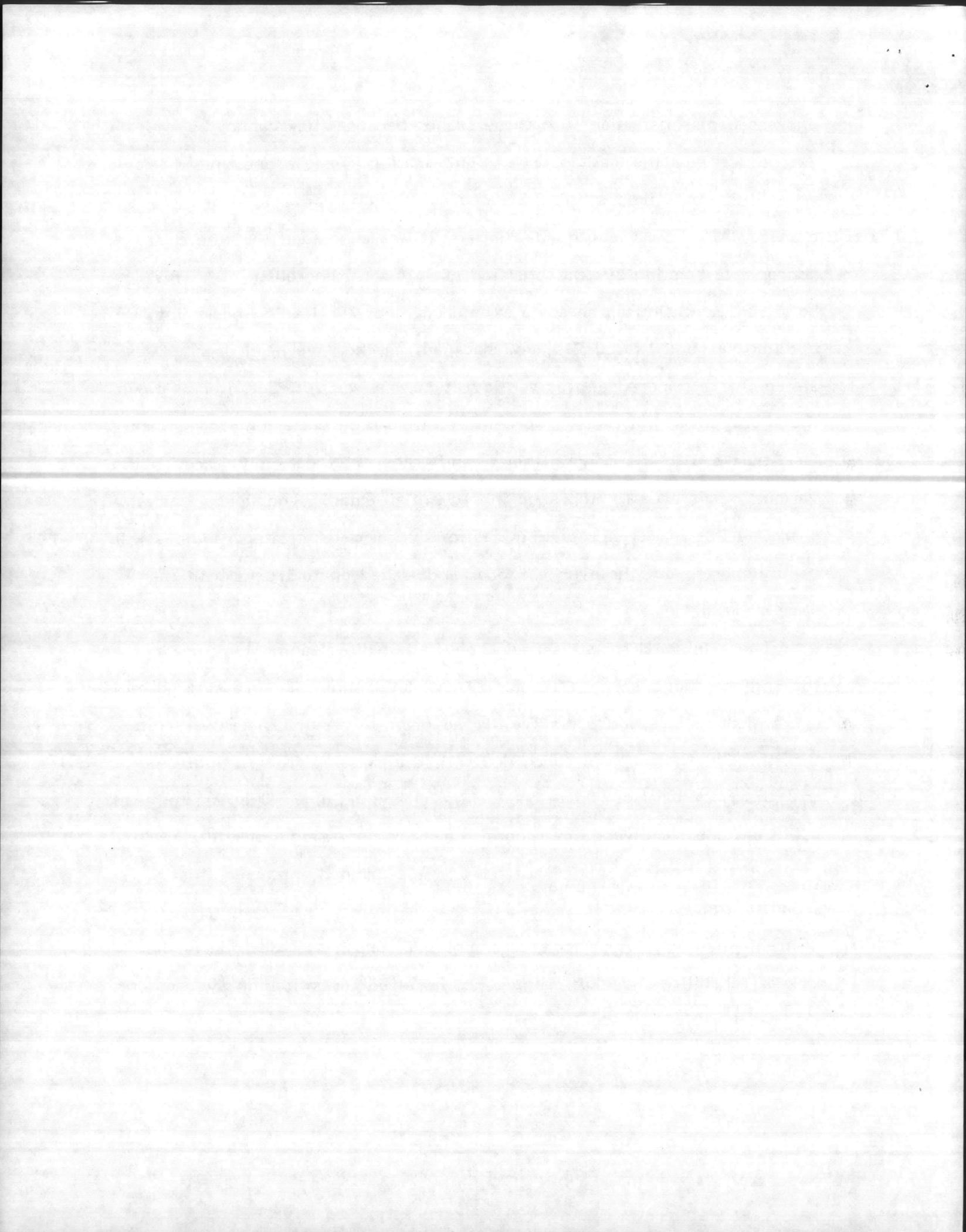
The meeting began with a discussion of the dynamometer test area of the engine rebuild shop. The requirements for the dynamometer test area were discussed at some length. Space will be required for four dynamometers. After some discussion, it was decided that design of the dynamometer area should be worked around the existing dynamometer equipment which the user has on hand. User agreed to make available information regarding specific technical design requirements for these dynamometers within one week. User further stated that a dynamometer area to accommodate this same equipment is presently under design. This area will be used in the interim until project P-257 is completed. User stated that the A/E for design of the interim facility is Von Oesen in Wilmington, North Carolina. Technical information regarding dynamometer design requirements has been given to Von Oesen but will be retrieved by the user and furnished to Olsen Associates. User also agreed to furnish to Olsen Associates the design drawings which have been prepared by Von Oesen for the interim facility. Capacity of the dynamometers was said to be one 1,200 horsepower, one 800 horsepower, and two 300 horsepower units. (Later in the day, these figures were revised to one 2,000 horsepower, one 900 horsepower, and two 500 horsepower units.) User stated that he has on hand portable battery equipment for starting engines to be tested with a fuel tank.

The next items discussed were the hoisting systems to be used in the engine rebuild shop area. The preliminary floor plan and the definitive drawing both indicate 10-ton overhead bridge cranes in this shop. User



expressed dissatisfaction with these cranes because they cannot be made to extend out over the loading dock. This inability to load and unload heavy motor units from trucks was described as a major drawback to bridge cranes. After some lengthy discussion, it was concluded that the most appropriate hoisting system consisted of a 10-ton monorail hoist. This hoist rail is configured so as to extend out over the loading dock, into the building, around two curves, and back out another overhead door. User stated that a monorail of this configuration was well suited to work flow in the shop. User will receive work in at the loading dock, unload engines from trucks with the monorail hoist, and transport these units through the various repair areas in the shop in sequential order. The final repair operation is dynamometer testing. After dynamometer testing, engines will be transported out the overhead door and loaded on to trucks with the same monorail hoist.

There followed some discussion of the hot-dip cleaning tank used in the engine rebuild shop. This tank is a heated tank of degreasing solvent into which engines and parts are dipped prior to repair. The user stated that the E.P.A. has been concerned with the emission from the unit and that they may be required to change the cleaning fluid. The possibility of using switches to divert the monorail hoist from its main track to allow it to serve the dip tank was discussed. It was decided, however, that a separate monorail hoist to serve only the dip tank would be the most desirable solution. A primary determining factor in this decision is the lack of reliability and high maintenance required for switching systems on monorail hoists.



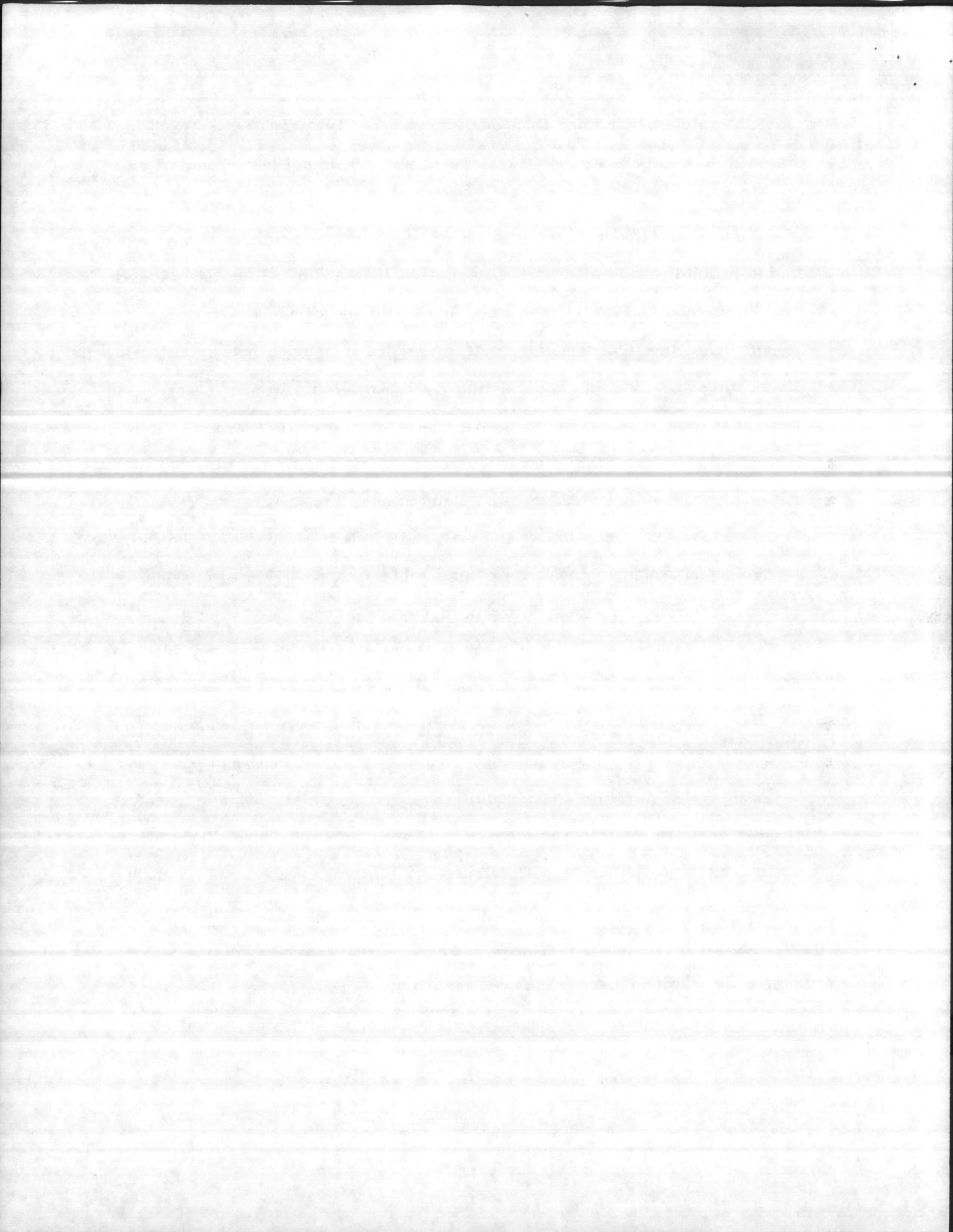
User stated that more than one hoist should be provided to travel on the main monorail because of the large number of engines in repair at any one time.

The user stated that engines being repaired are mounted on wheeled engine rebuild stands after being degreased in the dip tank. User stated that these rebuild stands could be rolled up to the dynamometer and hooked up to the dynamometer for testing without using a hoist. Later in the meeting after viewing the existing dynamometer operation, it was determined that hoisting would be necessary for the dynamometers. It was determined that one hand-operated chain-fall type hoist on a separate monorail should be provided at each dynamometer test cell.

There was a discussion of the size and location of all rooms shown on the preliminary plan in the large engine rebuild shop. This discussion resulted in several changes with regard to room, door, and window locations. These changes were noted on a copy of the preliminary plan so that changes could be made to reflect user needs.

The use of each room was discussed. A paint room was added to the plan. An oil and lubricant dispensing room was added to the plan. The user stated that the lubricants required in this phase are 30 weight motor oil and two types of transmission fluid. One engine oil dispensing station is required, and that is to be located near the dynamometers. The oil and transmission fluid will be supplied in 55-gallon drums. Water dispensing is only necessary in the dynamometer rooms. There was some discussion as to whether a waterfall-type curtain would be required in the paint shop. Mr. Gene Jones stated that design criteria for the paint shop would be furnished by LANTDIV.

\$ 90 weight



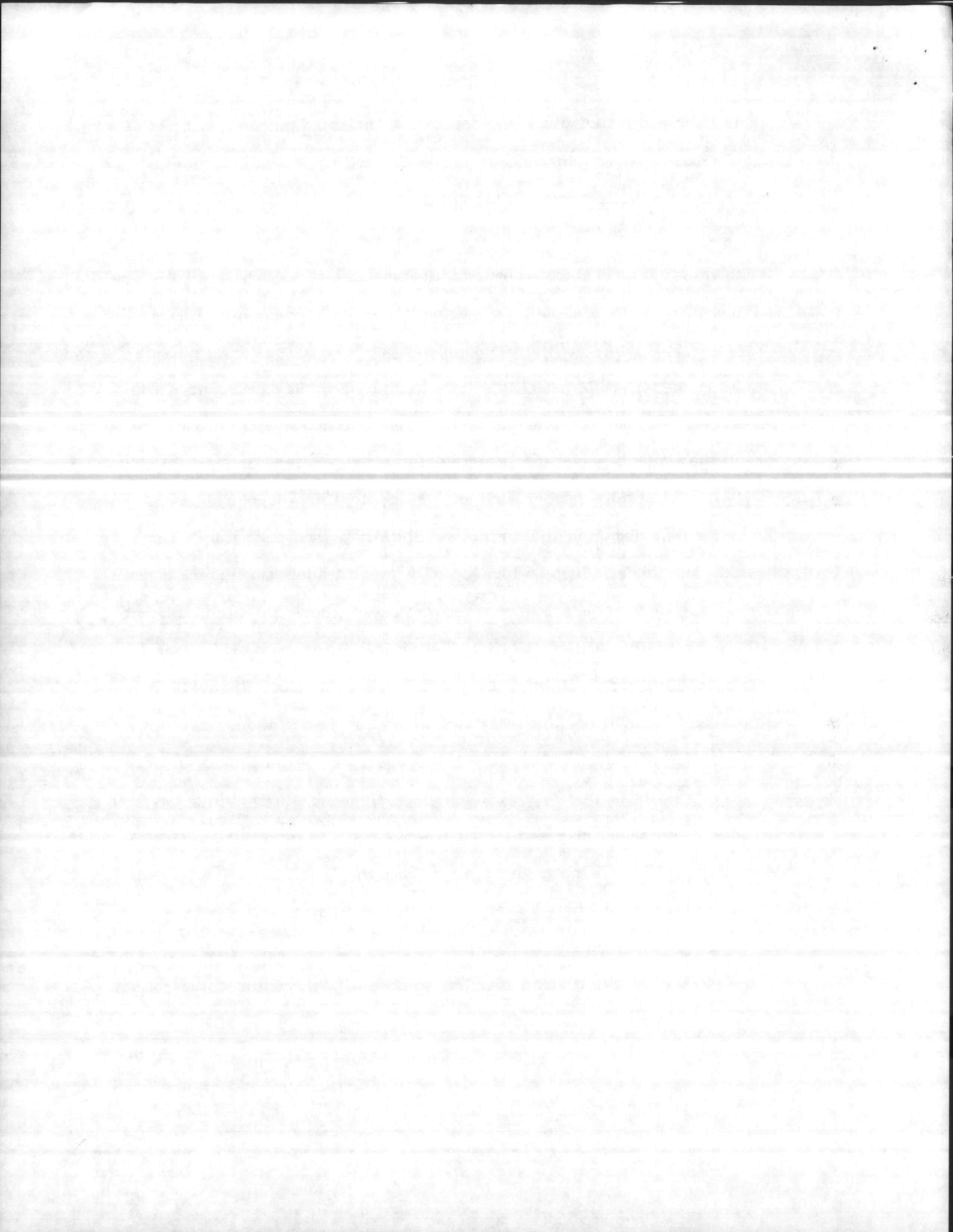
The user requested eyewash stations at the dip tank and in the F&E room. The user requested multiple mop sinks with hot water located throughout the rebuild areas. Floor drains were also requested in the rebuild areas.

The building mechanical room was discussed. It was decided to place the air compressor in the building mechanical room. The Public Works Department requested that the mechanical room have access from outside the building since maintenance activities in the mechanical room were the responsibility of Base Maintenance rather than the military user. It was also requested that a dryer be provided for all air. Gene Jones said that LANTDIV would supply proper air moisture content for overhead work.

The loading dock for the engine rebuild shop was discussed. User requested loading dock to be widened to 20 feet to allow maneuvering room for forklifts. User requested canopy over loading dock to extend 10 feet past the edge of the loading dock to shelter loading operations. User requested loading dock height to be set to accommodate a military-type five-ton truck. Level parking area for a five-ton truck should extend 30 feet from loading dock. It was pointed out that the loading dock area would be depressed approximately four feet below the surrounding paved hardstand. The monorail, as discussed above, will extend out over the loading dock to allow hoisting of engines from the truck bed. User stated that the hoisting point should be five feet in front of the face of the loading dock to allow hoisting of engines.

It was pointed out that an exhaust system will be required for solvent fumes released from the hot-dip tank.

The minimum hook height for the monorail hoist over the dip tank should be sufficient to clear the edge of the tank which is about 10 feet

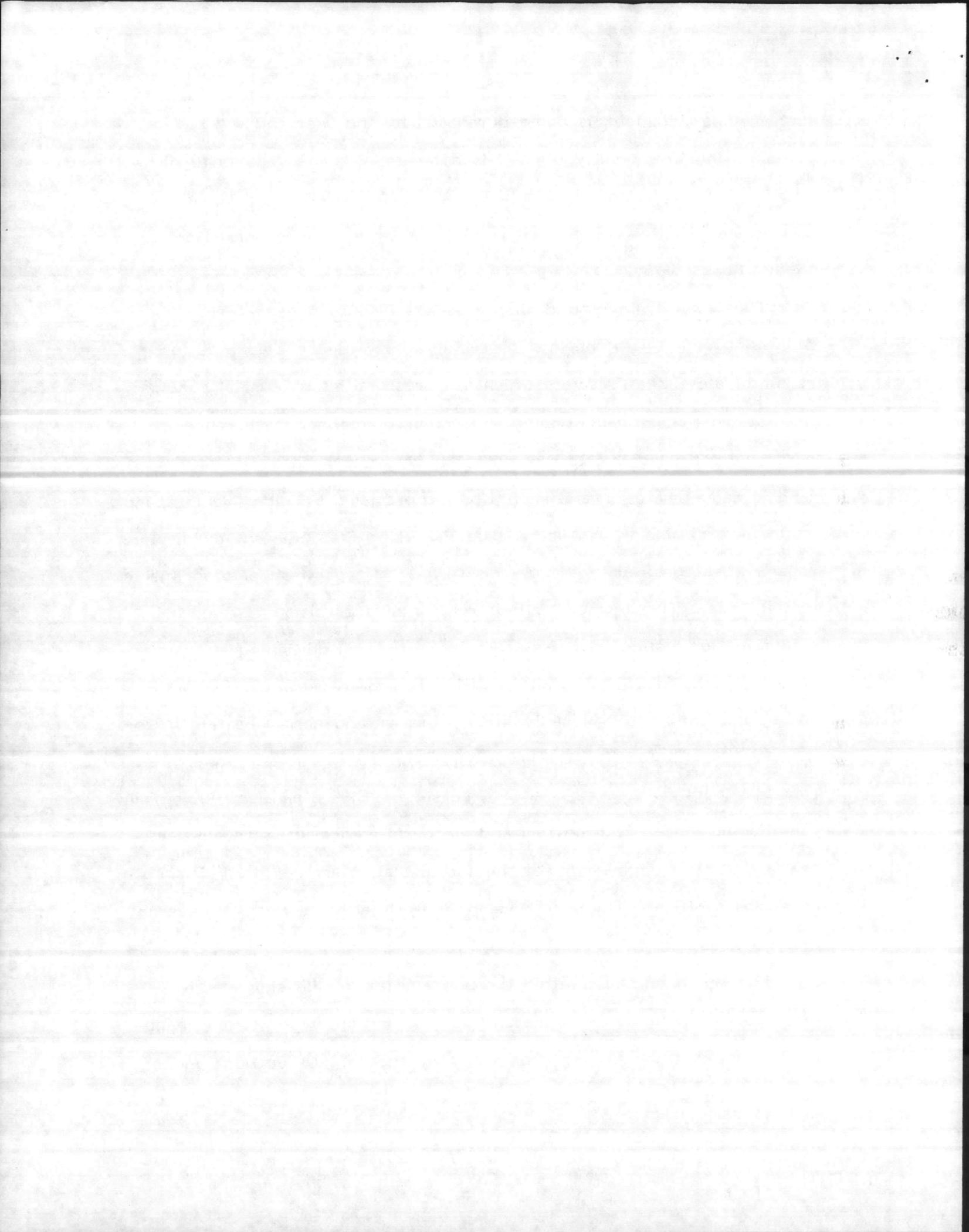


high. A new dip tank is being purchased by the user and will be relocated into this facility when it is complete. User agreed to furnish details of this tank so that the hook height of the hoist could be determined. It was agreed that preliminary design will be based on a 15-foot hook height.

The power train rebuild shop area was discussed next. The discussion began with the injector repair area. Injector repair is for repair of diesel fuel injectors which are precision machine metal parts. User stated that air conditioning was required in this area because personnel repairing injectors could not have sweaty hands. Sweaty hands tend to cause corrosion and misfits of the precision machine injector parts.

The preliminary plan had indicated a paint shop adjacent to injector repair. User desired to change this room from a paint shop to an injector testing area. The injector testing area contains precision testing equipment for testing injectors after repair. Air conditioning is also required in this area. The air conditioning requirements are for 78° F and 50 percent relative humidity in the summer and normal heating in the winter. User stated that the accessory shop area within the power train rebuild shop should be renamed as F&E shop. This area also requires air conditioning since precision fuel and electrical equipment is repaired in this area. User requested that the administration area of the F&E shop be an enclosed office. The user asked that the fuel pump machine have an exhaust hood.

The layout of rooms within the power train rebuild shop was discussed and found to be generally satisfactory although certain changes were noted on the preliminary plan in door and window locations and in partition types.



The hoisting equipment in the power train rebuild shop was discussed. User requested a monorail hoist system as previously discussed for the engine rebuild shop also be provided in the power train rebuild shop in lieu of the overhead bridge cranes shown on the preliminary plan. User's reasoning was the same as the engine rebuild shop; i.e., that a monorail hoist would better suit the flow of work within this shop and allow loading and unloading of trucks.

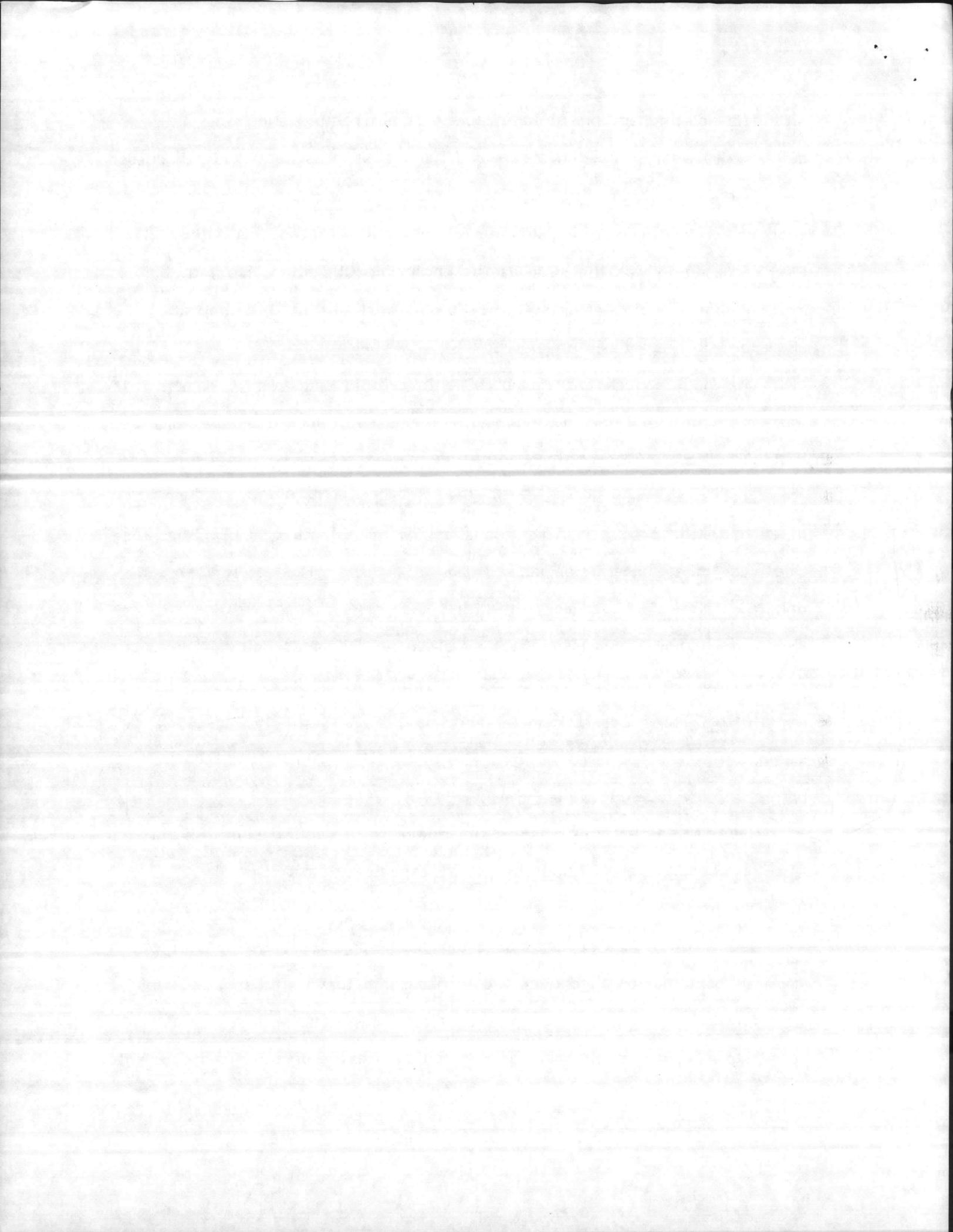
The loading dock for the power train rebuild shop was discussed. It was determined that the loading dock for this shop should be the same as that described for the engine rebuild shop.

There was some discussion of the transmission test unit to be installed in the power train rebuild shop. A manufacturer's brochure for this piece of equipment was passed around. User agreed to furnish detailed technical requirements for this piece of equipment to Olsen Associates. The transmission test unit was described as being similar to a dynamometer unit except that a 150 horsepower motor is required to operate it. The nature of the test unit is such that the 150 horsepower motor can be located remotely from the unit. User requested that the power unit be located outside the building.

User stated that the hoist in the power train rebuild shop have a five-ton capacity rather than the 10-ton capacity indicated on the definitive drawing.

User requested a separate five-ton, hand-operated, chain-fall type monorail hoist be installed over the transmission test unit.

The MMU area of the facility was discussed. The MMU area needs access to a loading dock. It was decided to provide an overhead door into



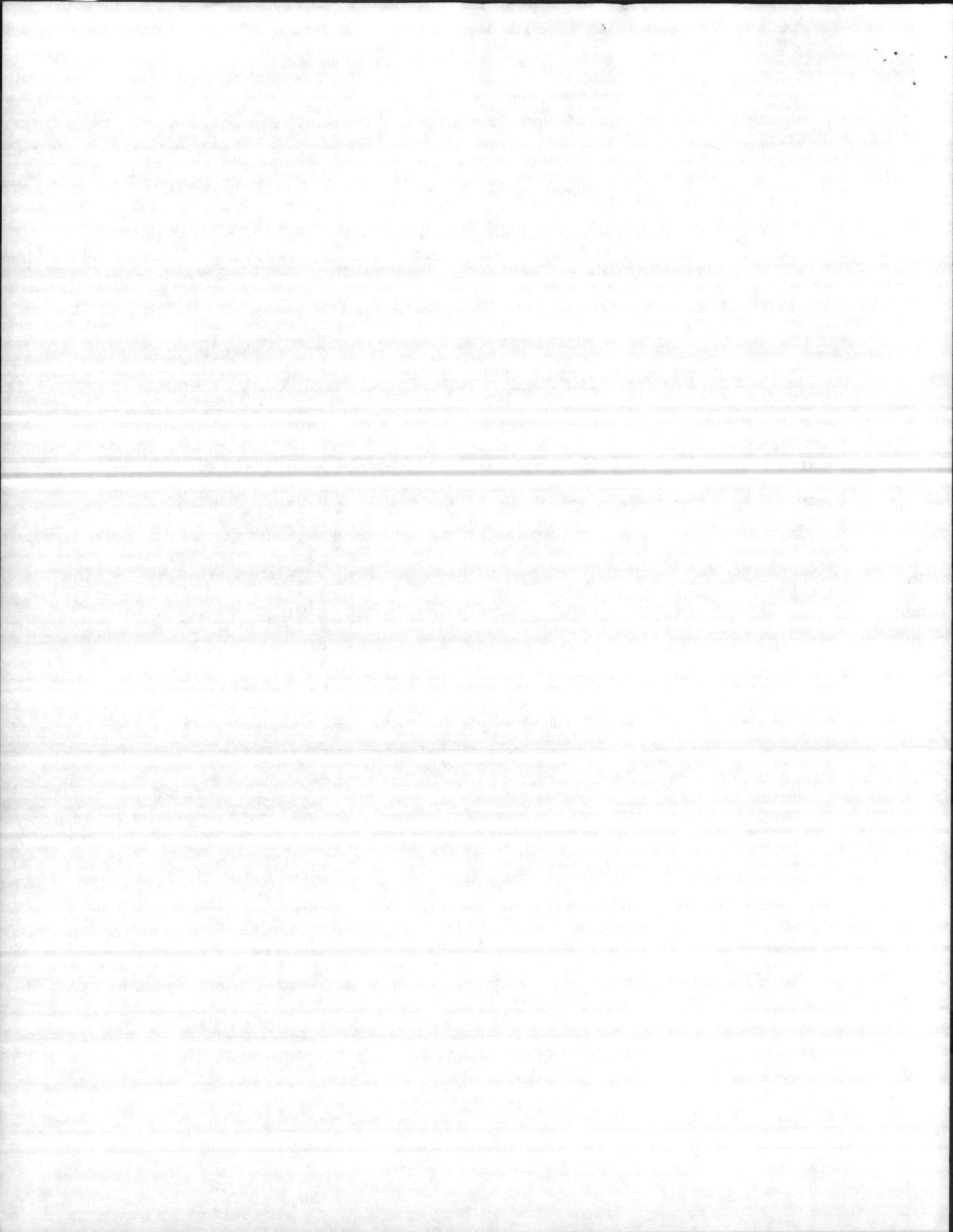
the MMU area from the loading dock already furnished for the engine rebuild shop.

The MMU area was described as a storage and issue facility for repair parts. Approximately 50 personnel will work in this area. Much of the work is clerical in nature. The user furnished Olsen Associates with a sketch of the desired floor plan arrangement for this area.

It was agreed that Olsen Associates would make revisions to the preliminary plan to reflect changes arising from the predesign conference. Olsen Associates agreed to return the revised preliminary plan to the user for his use in determining equipment layout in the shop areas. User agreed to take this revised preliminary plan and draw on it all items of shop equipment required for this facility and to generate a revised collateral equipment list. User agreed to furnish a tabulation of all building service requirements (such as air, water, electrical voltage, power requirements, etc.) for each piece of equipment.

The next item of discussion was the site plan for the fully-developed field maintenance complex facility. Olsen Associates had previously prepared and transmitted for review three alternative site layouts designated A, B, and C. It was determined that Site Layout A which runs parallel to Main Service Road was the only feasible layout for this facility. This determination was made based on the constraints of the available site as well as the plans for future tank trails which will be developed in this vicinity.

The Public Works Department stated that a paved tank trail beginning on the far side of Cogdill's Creek and continuing along the length of the field maintenance complex will be required. It was pointed out that design of this paved tank trail and stream crossing were not presently in the



scope of the design contract and will be added to that contract after negotiation with LANTDIV personnel.

There was some discussion of the inspection station building. User was uncertain whether hydraulic lifts for vehicles being inspected should be installed in this facility. User agreed to furnish a decision in this regard at the earliest possible date. User agreed to furnish detailed dimension and weight data for all vehicles to be lifted by these lifts if they are required.

It was pointed out that the designer for this project is under severe time constraint. Therefore, the user must provide the various equipment and service requirements data as quickly as possible.

After this discussion, the meeting was adjourned, and Olsen Associates personnel were given a tour of the existing maintenance facilities in use by the user.

